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N. S. DAVIS, M.D.

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THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., EDITOR.

VOL. X. MARCH, 1869. NO. 3.

Original Contributions.

ARTICLE XI.

"IS THE PROTECTIVE POWER OF VACCINATION AFFECTED BY THE LAPSE OF TIME?"

BY F. K. BAILEY, M.D., Knoxville, Tennessee.

The above question is made the subject of a clinical lecture by Graily Newell, M.D., at St. Mary's Hospital Medical School.

My attention was directed to it in looking over the EXAMINER for November, 1863, where the lecture is copied from the *Lancet* of June 13th, 1863. This is a question which should deeply interest not only every medical man, but also all men and women who wish for themselves or their children to retain a face unspotted, or rather unpitted.

I well remember, when a child, that a man in our village had small-pox. He had taken it the "*natural way*," and, as generally is the case, died. At dead of night he was buried, and his only attendants to the grave were some of his neighbors who had had small-pox. At that time I was vaccinated; and "it worked finely;" leaving a scar, which, in after-life, was considered an indication of immunity from the terrible malady. How much it proved a protection, the sequel of this communication will tell. Very singularly, I had lived to be nearly 40 years of age, without being near enough to a case of small-pox

to be exposed. Meanwhile, I had at various times introduced virus to my own arm, while vaccinating others, but without effect, except the itching known to all.

In December, 1862, while in charge of a division of the U. S. General Hospital at Quincy, Illinois, a private, belonging to the 4th Minnesota Infantry, on duty as cook, contracted small-pox. As soon as it was known that we had this disease in our wards, every one in the hospital was vaccinated, myself among the rest. The patient died on the 16th, and about the same time I was taken suddenly, and severely, sick. There was headache, and pain in the lumbar region, with a most inexcusable vomiting, which sedatives and correctives failed to allay. There was the horrible cold stage, followed with terrible heat of surface, and, in fine, all the commonly-described symptoms of variola. Still, it could not be small-pox, if vaccination, and revaccination, oft repeated, had been of any avail.

But, after more than forty-eight hours of suffering more intense than I had ever before endured, a profuse sweating commenced, accompanied by a very welcome relief from distress. On putting my hand to the edge of the hairs about the forehead, and upon the face, there were to be felt minute points, like as if small shot were imbedded in the dermis. In fact, I had varioloid most firmly developed. *Here* was a case, involving the question now under consideration. Enough had been endured to render it personally interesting. Fortunately, no other cases of either variola or varioloid occurred at this time.

There were some exposed at the time, who never had been vaccinated, as will be seen in the following. From notes now in my possession, there were then in the division seventy-one persons, who had been more or less exposed to the contagion.

Of this number, ten gave no evidence of having been vaccinated. There were no scars to be found upon their arms, nor could they remember that it had ever been attempted.

Four had had small-pox. Forty-five had been vaccinated before puberty, and twelve subsequent to that period. The ten unprotected persons were vaccinated, as stated above, with successful results.

Of the revaccinations, forty-eight were unsuccessful, and ten successful; one of which was upon a person who had had small-pox. By a successful revaccination is meant, a case where a scar could be found, but all the phenomena as seen in genuine original vaccination, were noticed. It is noted, also, that among the whole seventy-one individuals, there were three who had had varioloid, but they stated that they were vaccinated in early life.

During the winter of '62 and '63, no patients were sent to my division till February. The following is a copy of the report made at the end of the month:—

Whole No. of patients,	106
Number who gave no evidence of having been vaccinated,	17
" " had been vaccinated before,	89
" " had had small-pox,	8
" of revaccinations successful,	25
" " vaccinations do.,	8
" successfully revaccinated who had had small-pox,	3

Nine (9) of the seventeen reported as unprotected, in whom vaccination was not successful, were subsequently carefully revaccinated, but of the result no record is at hand. A portion of them might have once been successfully vaccinated, and the evidence by scar might have been upon the lower limbs, as the arms only were examined. No cases occurred till the next December, although patients were constantly arriving. Vaccination and revaccination were carefully attended to, and monthly reports of results made, but no copies were preserved, to which reference can now be made.

On December 2d, about fifty patients were admitted, mostly from Nashville, Tennessee. Many of them had been vaccinated at different hospitals South; and some even had crusts upon the arms, not sufficiently mature to be removed.

But the orders were, that the operation should be repeated in all cases of admission, without exception, and regardless of what had been done previously. In one case, there was a crust upon the arm, and the soldier very naturally objected to the

annoyance, but yielded, because it was the "*order.*" Virus was carefully inserted in the arm, near to the scab so nearly matured, and nothing more thought of the case, till in a few days he was taken with characteristic symptoms of variolous disease, followed, in due time, by a fine crop of eruption. He was at once sent to small-pox hospital, and the case proved to be one of unmodified small-pox. The eruption became umbilicated, and pits were left upon the face.

In another case, a soldier belonging to the 125th Illinois, was admitted December 2d, and, with the others, was revaccinated. Upon his arm was a large and distinctly-formed scar, and I inserted the virus upon each side of the original scar. The vaccination worked finely, and scabs formed at each point. After the crusts had begun to dry, and were nearly ready to separate, he was taken with small-pox in a very violent form, and died January 8th.

During the month of December, there were a great many cases of varioloid, characterized by febrile symptoms, and a slight eruption, but of undoubted genuineness.

Among those were many I had vaccinated and revaccinated at former periods, and it seemed evident that they were protected from the influence of contagion.

The mild cases, that required no nursing from others, were merely transferred to the fourth-story ward of the building; and as many as twenty were in that room at one time.

They were isolated merely long enough for the vesicles to dry, which seldom required more than a week or ten days. During the intense cold weather in January, 1864, the variolous disease was very malignant, and seemed determined to become general; and no one felt secure, because so many were affected who were supposed to be well protected. The young man who was detailed as prescription clerk in the dispensary had well-developed varioloid, although the virus had been inserted in his arm at several different times.

At this period, unmodified variola also prevailed in the four or five divisions of the General Hospital, as well as among the people in the city. I will mention another case, showing the

potency of contagion under certain circumstances. A corporal belonging to Company "I," 72d Illinois, was a convalescent in hospital, and had been in the wards as nurse for some months. In the notes of vaccination, it is stated that he was vaccinated at the age of 15, and revaccinated twice before coming under my care. The operation was repeated by myself on his admission, with all the others, and was considered as exempt from contagion as he could well be.

Among the patients was a young man who had lost an arm, and the corporal, having the care of dressing the stump, had formed a strong attachment to him. Some time in January the young man was taken with characteristic symptoms, which proved to be a severe case of modified small-pox.

When he was sent to small-pox hospital, the corporal volunteered to accompany him as a special nurse. I objected to his going, for the reason that none were sent as nurses, except those who had had small-pox, or varioloid. But, as he had been so much exposed to severe cases that had occurred at different periods in the same ward, it was thought that he would be safe; and, as he assumed all the responsibility in case he should contract the disease, he was allowed to accompany his young comrade.

The room to which they were assigned at the pest-house was one in which a man was recovering from the disease in a severe form, and the corporal staid with both of them, night and day.

In twelve days the corporal was attacked, and had the characteristic symptoms in a severe form. The eruption came out very thickly, and the case was one of well-developed modified small-pox.

This, we see, was an instance where the person had withstood the contagion in a less degree of intensity for some time, but succumbed after remaining constantly in a room with the disease. The corporal soon recovered; and it would seem that he could, after such an experience, be considered exempt, if any one ever could. During this period, there were three or four cases of well-developed varioloid in persons whose faces

were already pitted, and had, as well as all the rest, been revaccinated under the general order. When a Teuton or a Celt, who, in the Old Country, had had small-pox from inoculation, became subjects of varioloid, our faith in such a thing as immunity was considerably shaken. Late reports from California state that serious doubts are entertained upon this subject in that region. One thing is very conclusively shown, which is, that epidemic influence will, in this disease now under consideration, as well as some others, render all rules and laws liable to exceptions.

It is very evident that people generally are becoming thoughtlessly indifferent to vaccination in their families. We frequently hear, when it is suggested to a mother that her children should be vaccinated, the exclamation, "Why! is the small-pox about?" When informed that it is not, but liable to occur at any time, she will say, "Then I will wait, for I don't want the little thing to be sick."

The late war found great numbers of men who stated that they were vaccinated in childhood, "but that it did not work," and the operation was never repeated. But very few had been revaccinated, and consequently, in cases where the original operation, although successful, had "run out," they were fit subjects for variola, especially when prevailing as an epidemic. Had they remained at home in their rural neighborhoods, they might never have been exposed.

One reason of the indifference of people upon the subject of being protected from variolous contagion is, that but few have ever seen a case of small-pox. One walk through the rooms of a "*Pest-House*" (which every one, of all things, will avoid) would suffice to cause alarm, and awake attention to vaccination.

In conclusion, then, it may be remarked, that even if vaccination is not an absolute immunity from variola, still, the disease is so much modified, that fatal results seldom follow.

The case mentioned above, of the soldier in the 125th Illinois, is the only exception, in some hundreds of individuals, during an observation extending over a period of nearly three years.

As a result of these observations, it is clear, that if every person could be vaccinated in infancy, revaccinated at the age of puberty, and at the age of twenty-one, there will be a degree of immunity as nearly absolute as can be conceived.

But, while one can have varioloid without serious results to himself, still, the mildest form is capable of communicating to an unprotected person the disease in an unmodified and fatal type. The above observations are given, in the main, from facts only deduced from memory. If access could be had to official reports made from month to month, many more cases might be presented of a similar nature.

Others may have observed the same facts; but, if so, they have not given publicity to the results of their observations.

ARTICLE XII.

CHLOROFORM IN INTERMITTENT FEVER.

BY D. SCOTT, M.D., Bellefontaine, Iowa.

N. S. DAVIS, M.D.: *Dear Sir:*—I beg leave to add a little more testimony on the use of chloroform as an internal remedy.

To Dr. A. P. Merrill, of New York, is due the credit of the discovery of this property of chloroform; although the medical journals, in their notice of my report on its use in the chill of intermittent fever, gave the credit to Dr. McClellan, who, certainly, has no more claim to originality in the use of the remedy than myself. I regard its discovery as a matter of no mean importance; on the contrary, I believe it to be second only to its original discovery as an anæsthetic. In support of Dr. Merrill's claims to priority in its use, I would beg leave to refer you to his published Lectures on Fever, delivered in the Memphis Medical College, in 1853–6, from which I make the following quotation, page 58:—"Chloroform, in doses of a fluid drachm, more or less, and repeated as its effects subside, will accomplish, in most cases, all that can be expected of opium, in regard to the nervous system, and without the objectionable

features of the opium practice. * * * I have known the chill of an intermittent to be relieved by it more promptly and effectually than by any other remedy; moderating, also, the stage of reaction to an extent which rendered it almost imperceptible; thus placing the patient, with little loss of time, in a condition to receive proper treatment for the period of intermission. * * * No risk of fatal or injurious effects is incurred by the use of chloroform in drachm doses; but it must be borne in mind, that its effects are much less permanent and lasting than those of opium; a frequent repetition of the dose being necessary to a prolonged influence of the remedy." It is also mentioned on pages 81, 136, 169, 191, 193, 209, 230. It was not until after the perusal of the Doctor's report on the use of chloroform as an internal remedy, written for the International Medical Congress, that I became aware that the range of its application was so extended; since which time, I have used it in a variety of pathological conditions, such as infantile convulsions, puerperal convulsions, uterine hemorrhage (*post partum*), spasm of the stomach, colic, etc.

The following cases I desire to report in detail:—

Case I. On the 8th of July, 1868, I was hastily summoned to see a lady, 44 years of age, whom, six hours previously, I had delivered of a dead child, at full term: the case having been one of placenta prævia, I had turned and delivered, with little trouble to myself or patient, and left her, two hours afterwards, apparently comfortable and cheerful—but the messenger said she was dying; and, when I reached her, a few minutes later, I feared it was but too true. She was just emerging from a convulsion—the twelfth, the attendants informed me—there she lay, cold and cadaverous, bloody foam issuing from the mouth, respiration stertorous, and no pulse perceptible at the wrist; the jaws were spasmodically closed; I opened them, however, with some difficulty; and, in this dire extremity, I unhesitatingly poured half an ounce of undiluted chloroform into her mouth; which was immediately swallowed. In ten minutes the stertorous breathing ceased, the pulse came up full and bounding, and the patient was sleeping as easily and naturally as

though enjoying the most healthful slumber. This continued for a period of about two hours, when she awoke perfectly conscious; but, with some confusion of mind, she made a slow but good recovery.

That the recovery, in this case, was due to the remedy, we may reasonably conclude, when we take into consideration the exhausted condition of the patient from flooding, etc., together with the severity and persistence of the paroxysms. Whether the remedy had ever been used previously in such condition, I am not advised; but, so favorably am I impressed with its efficacy, that whenever I am so unfortunate as to meet with such cases, I shall not hesitate to use it in heroic doses.

CASE II. On the 20th August, 1868, I was hastily summoned to see a young woman who had ignorantly swallowed a quantity of strychnine, which quantity I could not exactly ascertain. I found her in great distress, having suffered repeated convulsions. I administered a teaspoonful of chloroform, which afforded considerable relief; but, no tendency to sleep, in fifteen minutes I repeated the dose; and, in a short time, she was sleeping very comfortably, and continued so for about one hour: she had no return of the symptoms, and no subsequent treatment.

Doubtless, the latter case develops nothing new, from the fact that Dr. Dresbach, of Tiffin, Ohio, reported a case of recovery, under similar treatment, a number of years ago.

ARTICLE XIII.

LITHOTOMY—SEMILUNAR EXTERNAL INCISION.

BY JAMES T. NEWMAN, M.D., Chicago, Illinois.

Was consulted by G. H., September 9th, 1868, who stated to me that he had great difficulty in passing his urine. Oftentimes, when in the act of micturition, the stream would flow freely; then, all at once, it would stop suddenly; at other times it would start, and he could not control it. There was great pain in passing the fæces; there was also a constant dull pain

at the neck of the bladder, together with a sense of weight, or pressure, at the lower part of the pelvis. His urine was high-colored, and often mixed with blood. He begged of me, for God's sake, to give him something to relieve him; at the same time, asked me what was the matter? I was not prepared to give him an answer so soon—putting all these symptoms together, told him nothing more than that there was an urinary disease of some kind, of which, I could not determine at the present time; well knowing that they might be considered diagnostic of enlargement of the prostate, or irritation of the neck of the bladder. Sometimes, where there is a tumor hanging by a small pedicle, it will give rise to symptoms similar to those mentioned.

We will now take those disorders up, and examine them, *seriatim*. An enlarged prostate gland is attended with symptoms similar to those of a stone; with this difference, that the motion of a carriage does not increase the pain when the prostate is diseased; while, in a case of stone, the patient suffers the most excruciating pain. It also generally happens that the fits of stone come on at intervals, whereas the pain from an affected prostate is neither so unequal nor acute. When there is inflammation of the neck of the bladder, the parts become tumefied; hence the obstruction to the urinary jet, which gives rise to the conditions so often mistaken for those of stone.

These thoughts that I have here tabulated flew through my mind quicker than it takes to write them. I, however, told him that I considered his case to be one of a very grave nature, but would give him all the relief in my power, but would have to subject him to an examination, or, in other words, sound him. He very readily consented. I placed him in proper position, and took a small beaked sound and commenced exploring the urethra and bladder: he fainted, but I threw some water in his face, which soon revived him, and continued my exploration. It was not long before the sound struck upon a hard body, and gave forth the well-known click. I now was no longer in doubt about what was the matter, and advised

an operation, to which he at once consented. I told him I had never performed the operation. He expressed confidence in me, and that I might just as well commence on him as any other person. I must confess that the man startled me with the coolness he manifested, and, at the same time, my vanity was somewhat flattered; being anxious to record my name amongst surgeons that have performed this brilliant operation. I resolved to undertake it; but, after having made every preparation myself, confidence was taken down when I remembered that some poet had said, that "fools rush in, and stand where angels fear to tread;" but, thus far I was committed, and there was no backing out. Dr. W. H. Horn kindly promised to assist me; and, on the 20th of September, 1868, at 10 o'clock in the morning, we commenced to operate. The patient was properly secured, and put under the influence of chloroform. I passed a rectangular grooved staff into the bladder: the stone was immediately felt. I proceeded to make a transverse, crescentic incision in the perineum, after the manner of Erichsen: the centre of the incision was half an inch above the anus, and each extremity of it about one-half inch from the tuber ischü. I cut down, in the line of the superficial incision, to the central part of the perineum, in order that I might separate the bulbous portions from the rectum. I now directed the knife into the groove of the staff, through the membranous urethra, and just in front of the prostate. Its blade being directed upwards, the knife was now drawn backwards, cutting upwards, so as to form a vertical incision in the superficial surface, about one inch in length in the middle line, commencing with the original crescentic incision. Having laid aside the knife, a lithotomy caché was introduced along the groove of the staff; and, by the withdrawal of this, both lateral lobes of the prostate were divided to the extent of about three-fourths of an inch. The lithotomy forceps were introduced; and, by dexterous manipulation, the stone was seized and withdrawn. The calculus was phosphatic; in form, an oblate spheroid; its transverse diameter, 3.75 inches; its conjugate, 1.45 inches. He bore the shock well; expressed himself greatly relieved; recovered rapidly; and, on the 10th

of October, the urine ceased to flow through the wound, and passed through the natural passage: it soon afterwards healed up, and, at this time, he is in perfect health.

ARTICLE XIV.

OPERATION FOR OVARIAN DROPSY.

By THOMAS P. RUSSELL, M.D.
With Subsequent Treatment, By J. F. KELSEY, M.D.

Mrs. D., of Royalton, Wisconsin, aged 25 years, has had two children; the youngest born August, 1866. Her getting up from confinement was about six weeks, followed by the development of a tumor in the right inguinal region. I saw her first in November, 1867: laboring under an inflammation of the peritoneum, in consequence of the tumor, which had already reached the region of the stomach. Saw her again at Chicago, March 1st, 1868, in consultation with Drs. E. O. F. Roler and E. Andrews, Professor of Obstetrics and Surgery in the Chicago Medical College, who pronounced it multilocular ovarian dropsy, and told her, the only means of relief was in the removal of the tumor. She, not being prepared to be operated on, went back to her home in Wisconsin. Saw her again at her residence, December 14th, with Drs. Russell and Linde, of Oshkosh: found her much emaciated in flesh and strength; measuring 45 inches around the abdomen; had retained but little food and drink for six weeks past; vomiting from 1 to 4 times during the 24 hours; and very anxious for relief. She was told by Dr. Russell that she stood about 1 chance in 10 to live, in case of operation, and advised to take that chance; and, by her consent, would operate the next day, which was done, with the assistance, and in the presence, of Drs. Linde, Dickinson, Reiley, H. A. Frost, G. M. A. Brown, and J. F. Kelsey. An incision was made in the linea alba, about five inches in length from the navel downward; with an escape of considerable peritoneal fluid; exposing a large cyst, which was evacuated, followed by

another and another, until several were evacuated, of as many colored syrupy tenaceous liquids as there were cysts. The tumor, much reduced, exposed a large, semi-solid cyst on the right side, with firm and extensive adhesions to the peritoneum, which could not be reduced. The wound was enlarged about 4 inches, directly upward: adhesions gave way, under pretty smart force, exerted for that purpose, with the fingers. The tumor turned out the pedicles; three of them, one large and two small ones, were secured with large double silk ligatures, and severed, betwixt them and the tumor, with the knife, and transfixed in the wound, at two separate places, nearly two inches apart, irrespective of their origin, the two small ones together in the lower part of the wound. The wound was then closed with silver sutures; and one steel pin passing through the edge of the wound, and small pedicle to keep it upon a level with the abdomen, it being cut a little short (they were plenty long before separating); the large one left sticking half an inch out of the wound, which was dressed with carbolic acid cerate, and bandaged with a broad flannel roller. She was then put to bed, having been under chloroform 2½ hours; the operation occupying 2 hours. The tumor and its contents weighed 40 lbs.

December 15th.—Operation concluded at 1.30 o'clock, p.m.: patient in a great deal of pain; pulse, 130 per minute, feeble; respiration, 21: gave morphine, gr. ss. 2 p.m.: gave opium, gr. j., with ½ gr. morphine. 2.30 p.m.: very restless, with severe pain: gave tincture opium, gtts. 40. 3.30 p.m.: considerable pain; pulse, 120, feeble: gave opium, gr. j. 6 p.m.: inclines to sleep; thirsty; drinks ice-water freely: gave tincture opium, gtts. 40. 9 p.m.: pulse, 120; respiration, 21; use catheter; feels a little better: gave opium, gr. j. 11.30 p.m.: gave tincture opium, gtts. 40. *16th*—12.30 a.m.: more restless, with pain; pulse, 130; tongue coated with a brown fur, dry and swollen: gave opium, gr. j. 1.30 a.m.: gave opium, gr. j. 2.30 a.m.: has slept a little; pulse, 120; respiration, 20; says she feels some better; inclined to be wakeful: gave tincture opium, ½ teaspoonful. 7 a.m.: complains of smarting pain at seat of wound; pulse, 120; respiration, 18; use catheter;

wants to be turned in bed often, which has been done gently, to her satisfaction: gave opium, gr. jss., and ordered ½ teaspoonful tincture opium to be taken every three hours. 4.30 p.m.: pulse, 120; respiration, 12; tongue moist; skin cool; voids urine herself; takes a little crust coffee, and feels quite comfortable. 9 p.m.: complains of nausea, with pain in the bowels; tenderness; pulse, 130 per minute, feeble; has voided urine 3 times since 5 o'clock: gave, in addition, opium, gr. ij. 11 p.m.: feels a little better: gave opium, gr. jss. 11.45: vomits a little water: gave sub-nit. bismuth, gr. 20; tincture opium continued. *17th*—11.30 a.m.: has vomited once; her flannels were changed yesterday, and again to-day, with considerable discharge of fetid, bloody serum from the wound; the tongue is coated with a dry, brown fur, with moist edge; lips parched, with considerable sordes on the teeth; pulse, 120; respiration, 12; is quite free from pain; takes a little beef-tea. 4.30 p.m.: nauseated to the stomach: gave sub-nit. bismuth, gr. 20, which relieved it. *18th*—11.30 a.m.: just dressed the wound for the first time; abdomen tender and slightly tumefied; great soreness in the right side, and very thirsty: tincture opium with beef-tea continued. *19th*—11 a.m.: the decomposition of the stump smells very bad, sickening her at the stomach. 10 p.m.: skin cool; tongue moist, with white fur; pulse, 120; tenderness of the abdomen increased, treatment the same. *20th*—3 a.m.: patient very restless, with flatulence of the bowels: gave an enema of permanganate of potass, gr. ij.; aqua, oj., which procured two good evacuations and relieved her. 12.30 p.m.: have just dressed the wound; less soreness; the large stump puffing out of the wound, the bigness of a man's fist; gangrenous. So far, she exceeds our most sanguine expectation towards a recovery. 11 p.m.: a little nausea: gave bismuth, gr. 20: feels a disagreeable sensation in the bowels: gave an enema of permang. of potass, gr. j.; aqua, oj.; retained, and patient feels better. *21st*—3 p.m.: just removed a large amount of dead tissue from the stump; treatment the same. *23d*—4 p.m.: wound some inflamed, with fulness of the bowels; otherwise cheerful: gave an enema of permanganate of potass; retained; takes

tincture opium, in ½-teaspoonful doses, every 4 hours. *24th*—9 a.m.: considerable discharge of pus; bowels more flatulent; remove one suture, for the first, and syringe the wound with dilute carbolic acid. 3 p.m.: gave an enema of oleum terebinth., ℥j.; oleum ricini, ℥j.; starch, oj.; retained. 8.50 p.m.: bowels largely distended: gave another of soap-suds, ojss.; retained. 10.15 p.m.: another of soap, salt, and molasses; retained. 11 p.m.: another of permanganate of potass, gr. ij.; aqua, oj., which operated, discharging some flatus; vomited again, and took bismuth, sub-nit., gr. 15, immediately after, with considerable relief; tincture opium continued as before. *25th*—7 a.m.: bowels still flatulent: gave another enema of permang. potass; retained. 9 a.m.: another of the same, which operated with considerable relief. 6 p.m.: gave another enema of permang. potass; retained. 6.45 p.m.: gave another of the same, which operated. *26th*—8 a.m.: bowels still flatulent: ordered the following solution, ¼ teaspoonful to be taken every 6 hours:—Strychnia, gr. j.; nitric acid, gtts. 30; aqua, ℥ij.; alternated with ¼-teaspoonful of laudanum, if the patient should have any pain. *27th:*—She took an enema of the permanganate last night; operated nicely; bowels but slightly flatulent; removed nearly all the remaining dead tissue from the large stump; wound discharging freely; appetite increasing; patient cheerful. The temperature of the room was kept the first week ranging from 57 to 60 degrees (Fahrenheit), and well ventilated; since then, still lower. *January 2d, 1869:*—removed the sutures and pin to-day; wound looks well; patient improving; is still taking the strychnine solution, as before.

MICROSCOPICAL EXAMINATION OF A HEALTHY OVARY.—It is found, by M. Sappey, that the number of ovisacs and ovules contained in one healthy ovary amounts to more than 300,000; consequently, the individual would have about 700,000. He calculates that if all the ova found on the surface of the ovaries of a young woman, eighteen or twenty years of age, were to be fecundated, one woman only would be required to populate four such cities as Lyons, Rouen, Marseilles, and Bordeaux; two women only would be necessary to furnish inhabitants for a city of 1,600,000 persons.—*N. Y. Med. Record.*

Foreign Correspondence.

VIENNA, *December 25th, 1868.*

DEAR EXAMINER:—I once met a man travelling through the State of Illinois in search of pine forests. He had found a few scattered trees on the banks of some of its streams; and was so encouraged that he continued his search. Not less amusing or humiliating is it to find comparatively intelligent American physicians in Europe studying particular branches of medicine, in cities where these branches are poorly taught and illustrated. For instance, one meets Americans in Wurtzburg paying especial attention to skin disease, where but little is found; instead of going to Hardee, at Paris, or Hebra, in this city, who have the most abundant material. Others stop a year at Heidelberg, to learn midwifery, when they could, perhaps, see more at Prague in a month: while many others cross the sea and study topics they had far better learn at home.

European students often think we are entirely ignorant of their institutions; and often, not without just reason. I was told in America that I would be allowed here to make all the operations in midwifery, and perform many important operations in surgery. On the contrary, I am permitted to make no considerable operation in the latter, and only to apply the forceps in the former.

I have thought that, perhaps, I might communicate something, both to those of your readers who may chance to visit Europe, for the purpose of study, and for the intelligence of those who remain at home, on Vienna as a place for the study of medicine; which might be of more benefit for the present than the detail of special cases; not intending, however, to compare this with other European hospitals or schools, but to state, in a simple manner, what opportunities the student may find here; leaving it for the reader to make the comparison with what he may know of other places. It is scarcely necessary that I should speak of the medical faculty. The names of Skoda,

Rokitansky, Sigmund, Hebra, Oppolzer, etc., are familiar to every medical scholar. I may hereafter speak of their treatment of special cases; which will better illustrate the worth of the men than anything I can otherwise say of them.

The Allgemeineu Kraukenham (General Hospital) has, at present, somewhat over two thousand patients in its wards; while between one and two hundred out-patients visit its clinics daily. The hospital building is in the form of a hollow square, with cross-sections, which divide the square into nine or ten smaller courts; so that only a minute or two is necessary to go from one clinic to another; which are so arranged, in regard to time, that one is enabled to attend from six to ten clinics daily.

I shall first speak of the department of obstetrics and diseases of women, and how they are studied. About 10,000 women are delivered in the two lying-in wards annually. In one of these wards the material is used by Professor Späth, for the instruction of midwives; the other is accessible to students of general medicine, male and female. Adjoining the ward is an amphitheatre, where Professor Braun delivers a clinical lecture, five times a week. Difficult cases are brought in, and delivered, on the table before the class, by the forceps, version, craniotomy, etc., as the case may require. Students are sometimes called upon to apply the forceps. I may here state that a female student (Russian), though strong and vigorous, has been entirely unable, through want of strength, in one or two cases, not very difficult, to extract with the forceps—if it be any argument against female practitioners? Women demanding surgical treatment are also operated on before the class. After the clinic, we often visit, for a few minutes, the gynæcological ward, of fourteen beds, and see a little of the treatment of female disease. Twelve students of the class are allowed to remain in the ward every twenty-four hours, and deliver normal cases, under the direction of the midwives; and those who have taken private courses in operative midwifery, of either of the Assistants, are often allowed to apply the forceps, and make traction, under the direction of an Assistant or the Professor; but to make no

other operation. Neither students nor midwives are allowed to make any operation without the presence of an Assistant or Professor, however urgent the case. This results in some evil as well as good. I've seen some cases lie for two hours, and finally result in eclampsia, because no Assistant could be found, and no student or graduated physician allowed to make some simple operation, as applying the forceps, which might have avoided this terrible calamity.

Private courses of operative midwifery are given by the Assistants, Drs. Rokitansky, Jr., and Mayerhofer, in which each student may make all operations on the cadaver of mother and child. Only those who have taken this course are allowed to apply the forceps in the ward.

On four evenings of the week, pregnant women, desiring to enter the lying-in room, are examined for admission. Those who have passed the seventh month are admitted. Students who wish are allowed to examine these cases, by palpation, and per vaginam, to determine the position of the fœtus, stage of pregnancy, condition of the organs, etc. We have no instruction in this, except the casual remarks made by the Assistant, as he passes from one case to another. The number of cases varies from one to ten; generally five or six. The other three evenings they are examined in Professor Späth's wards, to which, as I've before remarked, we are not admitted.

Although there appears to be abundant material to illustrate the diseases of women, over forty cases, yet there is no special Professor to illustrate this department. With the exception of the few cases in Professor Braun's ward, above mentioned, this department is in charge of a hospital physician, not professor, whose assistant gives private courses to classes of ten, in diagnosis and treatment of female diseases. Each student is allowed to examine cases, and give his diagnosis, which is confirmed or corrected according to circumstances; also, to introduce sound, catheter, and speculum. Our instruction, however, is not the most scientific or professional; and, I should judge, the student would be far more successful in practice by following the instruction of Byford or Thomas, in these cases, than by adhering

to precepts here received. In this private course I've seen no pessaries used, or operation performed for the displacement of the uterus. Uterine and vaginal discharges are not carefully distinguished and classified; hence, probably, not the most successfully treated.

I may add, that patients are generally removed from the lying-in wards from one to three hours after delivery, and are seldom bandaged. Cases of eclampsia are treated with large doses of morphine; rarely bled, or given chloroform. Medicine is rarely used to prevent secretion of milk. They claim equally good results, in both these departments, with other hospitals; but, if I mistake not, it depends largely on the class of patients, many of whom are sturdy peasants from the country, and can scarcely be compared with the hospital patients of Chicago, much less with those of private practice.

I shall endeavor to present some statistics of the hospital, on these points, at a subsequent writing. F.

Proceedings of Societies.

CHICAGO MEDICAL SOCIETY.

FRIDAY EVENING, Jan. 15, 1869.

The Society was called to order, President Marguerat in the chair.

Secretary Macdonald then read the proceedings of the last meeting, which were duly approved, and ordered to be placed on file.

The Society next proceeded to the discussion of "the therapeutical action and value of mercury and its preparations."

Dr. Loverin opened the discussion, by reading an interesting history of the mineral, where obtained; its different preparations, and modes of preparing them. Entered into the therapeutical uses of the most common preparations, including hydrargyri chloridum mite; hydrargyri bichloridum; hydrargyri

ammoniatum; hydrargyri iodidum; hydrargyri biniodidum; unguentum hydrargyri nitrico-oxidi; together with the strong and mild preparations of unguentum hydrargyri.

Dr. Loverin believes mercury very useful in æsthenic inflammations.

Dr. Bevan says that for the past four or five years he has been in the habit of treating acne with an ointment containing of hydr. biniodidi g. iij. to vij. to ℥j. of lard. Says that 5 grs. to the ounce will sometimes produce vesication. In some cases, where treatment was continued from two to eight months, has seen chronic acne of two years' standing entirely cured. In addition, it is sometimes necessary to give cod-liver oil and tonics. Has seen cases recover under this treatment when there was no benefit derived from sulphur, camphor, and rose-water, as recommended by Wilson.

Dr. Wanzer said he had treated a chronic ulcer of the leg by administering ℞. Hydr. bichlor. gr. $\frac{1}{8}$, Opii gr. $\frac{3}{4}$, three times a day, with perfect success, and that he is curing one at present. Says that he recommended the above treatment to the physician in charge of the Poor-House, who also treated several ulcers of similar character with success, and has never seen but one exception. Thinks the way calomel cures inflammation is by diminishing the plasticity of the blood.

Dr. Quails asked Dr. Wanzer if he made any distinction between the specific and non-specific form of ulcer in his treatment?

Dr. W. replied that he did not.

Dr. Weller was permitted to make some remarks. Stated that he had treated acne successfully with the bychloride hydrargyri; also used it in diphtheritic ophthalmia and diphtheria of the throat. Has used it in the abortive treatment of felons, by preventing suppuration. Uses a solution consisting of bichlor. hydr. gr. j. to alcohol dilute ℥j. Cited a case which had been progressing four days, in which, by the application of the solution on a piece of cloth, all swelling subsided in fourteen hours.

Dr. Davis says it has generally been stated that mercury di-

minishes the plasticity of the blood. Thinks it true of some of its preparations. But much depends on the way it is used. Does not think its action always the same. Thinks the use of bichlor. hydrargyri beneficial in chronic albuminuria or Bright's disease of the kidneys, when the blood is spanæmic. Speaks of its use by Dr. Johnson in the New York hospitals twenty years ago, in the latter-named disease; also of his own use, in combination with the tincture of cinchona, bichlor. hydr. gr. j. and tinct. cinchona ℥ij., of which a teaspoonful was given three times a day. After continuing several days, the tinct. of cinchona was increased to ℥iij., the dose being the same, with an intermission of three or four days, to prevent salivation. After two months, there was but a scanty precipitate of albumen to be found in the urine. In one year the patient had gained very much, and was able to work two-thirds of a day in a harvest-field, although not entirely free from the disease. Has employed it in a number of cases since, and in most cases with some benefit. Speaks of its beneficial use in irritable corneitic inflammation, charaterized by the red zone around the cornea, with little ulcers upon its surface, and great sensitiveness to light. The class of children affected by this disease are generally of the scrofulous diathesis. For twenty years has hardly met with a case but what has yielded under the following treatment:—

℞. Tinct. Cinchona,---------- ℥ij.
Bichlor. Hydr.,---------- gr. j.
M.

Twenty drops of which may be given to a child five or six years old, three times a day. They do not generally begin to derive benefit from the medicine until it has been given four or five days. The photophobia and irritability being removed in three or four weeks.

Sometimes it is necessary to use anodynes locally. For this he uses morphia, 4 grs. in water ℥j., dropped into the eye three times a day; also veratria, grs. iij. to ℥iv. dilute alcohol, which may be applied as a wash over the eyebrows each night and morning. After the inflammatory symptoms have disappeared,

he often substitutes syrup of iodide of iron or of lime for the bichloride and tincture of cinchona.

After some brief remarks by Drs. Wanzer and Loverin, the discussion was closed, and the Society proceeded to Miscellaneous Business.

The President announced that at the last meeting there was an assessment of $1.00 made on each member of the Society.

Drs. Davis, Paoli, and Holmes were appointed on the "selection of proper subjects for discussion by the Society."

Dr. Davis wished to know if any members had information regarding the Bill now pending before the State Legislature to regulate medical practice.

Dr. Seely remarked, he had read of such in the city papers, and believed such a Bill should be passed. Upon his motion, Dr. Davis was appoidted a Committee to report on the subject at next meeting of the Society.

Society adjourned.

FRIDAY EVENING, Jan. 22, 1869.

The Society was called to order, President Marguerat in the chair.

Secretary Macdonald read the minutes of the last meeting of the Society, which were duly approved.

Dr. Clarke called for the law governing the non-attendance of members, which was read by the Secretary, setting forth, "that if a member was absent three successive meetings without notifying the Society of the necessity of his absence, he is liable to have his name stricken from the register as a member of the Society."

Dr. Reid reported several cases of neuralgia, which he had found quite obstinate in treatment:—

CASE I. A lady, who suffered great pain in her head towards morning, and truly paroxysmal in character. Gave quinine in large doses, and partially succeeded in allaying her sufferings. Then gave arsenious acid and Indian hemp, with marked improvement. She has been under treatment about three weeks, and is now in the use of iron, and nearly recovered.

Case II. Old gentleman. Pain along the sciatic nerve. Bowels constipated. Gave quinia, which diminished pain somewhat. Tried arsenious acid, without much benefit. Upon purging, there were hard, impacted fæces passed, and the patient was better afterwards. Tried the Voltaic battery, with some benefit. Pain left ankle, and went to hip. Blisters were applied, and patient seemed to improve for a few days, but is now nearly as bad as ever.

Treated several cases successfully by the use of arsenic and quinine.

Case III. Lady. Neuralgia of bladder every night. Gave purgative, when a great quantity of hardened fæces were passed. Gave quinia, with benefit. Gave Dr. Gross's colchicum and morphia treatment, which was followed by great disturbance of the bowels and severe purging. Patient improved rapidly. Thinks there is great benefit derived from purging.

Dr. Paoli says that he has used in these obstinate cases of neuralgia the permanganate of potassa, in ¼-gr. doses, three times a day, with marked benefit; also using a strong solution externaly.

Dr. Clarke says that he has had a number of cases of rheumatism of late, also a case of sciatica, in which quinia and arsenic had been administered, without benefit. Most of the cases were very obstinate, but had very good results from citrate of potassa.

Dr. Hamill reported the case of a lady who had neuralgia of crural nerve, which was paroxysmal in character. An hour before the paroxysm was expected, he introduced, by hypodermic injection, morphia, gr. ¼, into the inner part of the thigh. The paroxysm was arrested, but it left the pain diffused over a larger surface. Then gave

℞. Bromide Potassa, ---------- ℥ss.
Tinct. Gelseminum, ---------- gtt. v.,

every three hours, when the pain was overcome. Treated ordinary cases of sciatica by the use of tinct. guaiac and phytolacca, equal parts; a teaspoonful of which may be given every four or six hours.

Dr. Loverin said he had treated a case of sciatica successfully by the use of cathartics, anodynes, Fowler's solution, and quinine. Says he has heard recommended large doses of the carbonate of iron, and also nydroganic acid.

Dr. Davis made the following report regarding the Medical Bill now before the Legislature. Stated that he had written a letter to Springfield requesting a copy of the bill, but he was unable to obtain it. He believed, from the knowledge he had received from his friend in Springfield, that the principal bill now before the Legislature is the one introduced by Dr. Edgar, the substance of which is: that it requires every man proposing to practice medicine in the State of Illinois to show that he has received a medical education; and that such persons having no diploma are to be examined by a medical board, and, if found competent, will receive a license, on payment of $25; and those physicians having diplomas, and presenting the same, upon payment of $5, would be registered. He was of the opinion that the two bills in the respective houses were somewhat the same; the object being to restrict the practice of medicine to such persons who had actually received a competent medical education. By this means, the community would be, in a great measure, protected against imposition. He also considered that so far as protecting the medical faculty was concerned, it only imposed upon them an additional burden, in the interest of the public. He hoped that the Society would take action in favor of having the bill passed and made a law, as the profession at Jacksonville and Springfield are evidently laboring to secure its passage.

Dr. Wickersham stated that he was opposed to the bill, and announced himself a radical on the question. He had not given twenty years of his life for the privilege of associating himself with *quackery*. He said he was surprised, and regretted, to see Dr. Davis favor the bill. He believed if our Legislature would pass a law excluding from the papers and periodicals quack medical advertisements, it would confer a great favor upon the public; but was entirely opposed to the Societie's taking any action on this matter whatever; for he was firm in the belief

that nearly all medical advertisers had diplomas from medical schools, and that this very bill would protect them in their impositions, for they could easily obtain certificates from the State Board.

Dr. Clarke expressed his views in favor of the bill, and believes we are in much need of such a law for protection of the people. Does not think more than one-tenth of the advertising quacks are graduates of our regular medical colleges.

Dr. Reid hoped the Society would act only upon a more thorough knowledge of the details of the bill.

Dr. Davis remarked that he was not a strenuous advocate of legislation for the profession, and said that any fair rendering of the bill would cut of those who were not legitimate members of the profession. The bill simply refers to medical education and medical practice, without recognizing homeopathy, or any other *ism*.

Dr. Hamill did not favor the further action in the matter, until the Society knew more respecting it; and moved that the matter be laid on the table.

Dr. Fitch hoped the Society would take immediate action, and adopt measures to secure the passage of the bill.

Dr. Wicksrsham was in favor of the Societie's passing a resolution against the enactment of such a law as the one proposed. He believed this was the age of medical, political, and religious quackery, and, as such, should be recognized and acted upon.

Dr. Paoli believed the profession should be entirely independent of all isms. He hoped all future action of the Society would be based on a copy of the bill.

Dr. Davis said he was confident that no legislature would pass a law creating a board of medical examiners, to examine those recommended by the medical profession.

The motion of Dr. Hamill being called for, the whole matter was laid on the table.

Society adjourned.

Selections.

ON AN EPIDEMIC OF TYPHOID FEVER.

By Dr. ROBERT PERRY, Physician to the Glasgow Royal Infirmary.

[During March, 1868, Dr. Perry's attention was directed to the existence of an epidemic of typhoid fever in the neighborhood of the Garnkirk Fire-Clay Company's Works, by the admission under his care into the Glasgow Royal Infirmary of five cases of that disease. The cause of the epidemic, having been investigated, was removed. The origin and mode of propagation of typhoid in isolated places such as this is, are always more instructive, and consequently more interesting, than they are in large towns.]

I may state, for the information of those who are unacquainted with the situation and surroundings of the Garnkirk Fire-Clay Works, that they are situated at about six miles from Glasgow, immediately on the line of the Caledonian Railway, from which a line of rails enters the works for the purposes connected with the manufacture of the fire-clay bricks, tiles, and many other articles, which are noted over the globe for their superior quality. Directly adjoining the works, and on ground rising somewhat towards the north and west, are a number of cottages occupied by the work-people and their families. The entire population of the surrounding houses may be roughly estimated at between 600 and 700. Beyond the workmen's cottages, and extending on every side, is an undrained moss, beneath the surface of which the famous fire-clay is found. With the exception of one or two small farm-houses and some pitmen's cottages, there are no other dwelling-houses within nearly a mile of the works. On the north side of the kilns and workshops, and surrounded almost on three sides by the cottages, is a large pond or reservoir of water for the use of the works and work-people. This reservoir is supplied with water from an adjoining clay-pit, the shaft of which is situated about 500 yards distant. The water is pumped out of the pit, and conveyed to the reservoir through fire-clay pipes, which are embedded only to a very slight depth in the ground. The number of men at work in the pit at the date of my inquiry was about fifty, and at that particular time the number was much less than the average of those who usually found employment there. I ascertained that there were no privies in the pit, and that the pitmen were in

the habit of passing their evacuations, when necessary, at any convenient part of the workings. From the clayey nature of the floor of the pit, it can readily be understood that little or no absorption takes place, and the whole drainage of the pit gravitates to the bottom of the shaft, whence it is pumped up, and the water so collected passes through the before-mentioned pipes to the reservoir. The greater part of the surface drainage from the ground surrounding the cottages, as well as the sewage and waste water from the houses, is intercepted before reaching the reservoir, and carried off by open surface drains running parallel with it, and those open drains are regularly swept and kept clean. At the end of the pond, however, at which the water supply pipe is led in, I observed a considerable quantity of sewage and surface drainage finding their way into the reservoir. From this fact, and judging from the general appearance of the water in the reservoir, there could be no doubt of its being largely contaminated with sewage and putrefying matter; but, on the other hand, there is no proof that the water taken directly out of the reservoir is ever employed for drinking or cooking. At the back and side of the row of cottages, immediately adjoining where the conducting-pipe passed, I observed that the ground was thickly studded with human excrement, and refuse thrown out from the houses, the privies and dungsteads being somewhat deficient there. Workmen were, however, engaged in preparation for building them, and I understand that the deficiency has since been supplied.

In addition to other measures recommended, I advised that the joints of the conducting-pipe in the neighborhood of the cottages should all be carefully examined and made secure. I have since been informed that when this was done, one of the fire-clay pipes at this particular part was found to be broken; and, moreover, that the surface water from the ground to which I have just referred was seen to flow into the broken pipe.

Here, then, was a clear proof of the impure and unwholesome state of the water passing through the pipe; and as all the water for domestic use was drawn from this pipe as it falls into the reservoir, seeing there is no other source of supply, we need feel no surprise at the outbreak of enteric fever which took place amongst those who made daily use of it. I regret that I have not been enabled to make out the exact amount of impurities in either the pit or reservoir water, by an accurate chemical analysis. I requested a specimen of the water to be sent to me for the purpose of analyzing it; but my request was not complied with.

Throughout the cottages adjoining the works there had occurred during the past month, and up to the date of my visit, about forty-five cases of enteric fever (without being strictly accurate as to numbers). A few of the cases had been removed to the Glasgow Royal Infirmary; but the majority were under treatment in their own homes. There was also one patient suffering from enteric fever in a cottage on the opposite side of the railway, and situated only a short distance from the works; and it is an interesting fact to note, that the inmates of this cottage derived all their water-supply from the same source as the people in the works.

Mr. Murray also mentioned to me, that he had at that time one patient suffering under the same fever in the village of Chryston, which is nearly two miles from Garnkirk; but that up to the time of his seizure he was employed in the fire-clay works. I was not able to hear of any cases of the disease among the workmen of the same Company who resided at a place called Crow Row, less than half a mile distant from Garnkirk, but which is supplied with water from a different source.

It is worthy of remark, that the proprietors of the works have for years been in the habit of furnishing, gratis, a filter for the use of the inmates of each cottage. Only a few, however, of the inmates availed themselves of this offer; and it is somewhat remarkable, that I did not find a single case of fever in any of the houses where the water was regularly filtered before being used for drinking or culinary purposes. Mr. Murray subsequently informed me that one or two cases did occur among those who used the filters; but that the proportion of those attacked in the houses where filters were used was very much smaller than among those who used the water unfiltered.

Very shortly after the adoption of the measures recommended for the prevention of the contamination of the water, a marked diminution in the number of individuals attacked was observed to take place. In about a month after, the fever was almost eradicated; there being only five or six cases, and those of a much milder type, and principally confined to children. There were in all above sixty individuals attacked, and amongst these the proportion of fatal cases was very small. At the commencement of the epidemic, the type of the fever was somewhat indefinite. Bronchial symptoms were more prominent than enteric symptoms, and several of the patients were sent into the general medical wards of the Glasgow Royal Infirmary as cases of bronchitis. In a short time, however, the abdominal

symptoms became more decided, and the characteristic diarrhœa, which was altogether absent in many of the earlier cases, soon assumed a very severe form.

I endeavored to trace out the history of the first case of enteric fever that had occurred at the works, and likewise if any connection could be discovered between the first and the succeeding ones. A rumor was mentioned to me of two men having recently come to the works who were at the time suffering from, or were immediately after attacked by, the fever. On strict inquiry, however, I was not able to find any foundation for this rumor.

Whether the germs of the disease were introduced from without, or originated *de novo* in some of the individuals who were using the water contaminated as I have pointed out, is not in this instance able to be proved beyond doubt. It is certain, however, that the very first case occurred in one of the cottages in the row immediately adjoining where the pipe conducting the water passed, and where I before mentioned that the privies and dungsteads were deficient.

If, as is more than probable, the intestinal discharges from this first case found their way into the pipe, the propagation of the fever by this means was most certain; and if the manager had not promptly carried out the recommendations for the suppression of this and the other likely sources of its propagation, there is but little doubt that the consequences would have been much more disastrous.—*Lancet, June 6, 1868, p. 718.*

A CASE OF HERPES ZOSTER.

Read before the Boston Society for Medical Observation, by F. B. GREENOUGH, Boston.

The following case of herpes zoster nuchæ, vel collaris, accompanied by, or coinciding with, a facial paralysis on the same side, occurred in the practice of Dr. John Homans, and it is through his kindness that I have been enabled to see and report it. It has been pretty universally conceded that herpes zoster is often, in some way, connected with a lesion of the cutaneous nerves of that portion of the integument over which it is distributed. The reasons for assuming this may be briefly stated as follows: The eruption always seems to follow the course of a nerve; this is constant, and, although there may be more or less irregularity in its distribution, on the whole, the

course of the eruption coincides pretty nearly with that of the nerve. Moreover, the eruption is very often preceded, accompanied and sometimes followed by, neuralgic pains in the nerves over which it appears. That these pains are really of a neuralgic character, and not merely due to the soreness of the eruption itself, is proven, first, by the character of the pain; and second, by the fact that the pain not only often exists before the eruption appears, and continues after it has disappeared, but that it is even worse sometimes at that time, than while the eruption is present. As has been said, then, it is admitted that herpes zoster is in some way connected with an affection of the nerves, as is shown by the coëxistence of neuralgic pain; that is to say, by an affection of the sensitive fibres of the nerves. *A priori*, we should suppose that any influence or cause that was able to produce an abnormal condition of the sensitive fibres of a mixed nerve, would also affect the motor fibres. Thus, we know that in a bad case of sciatica, the leg is for the time being more or less paralyzed. I have not, however, been able to find any mention of a motor paralysis in connection with herpes zoster, except in Hebra.* He states:—"It sometimes happens that the persistence and intensity of this symptom" (*i.e.*, neuralgia) "render the disease a very painful one; and in some cases the functions of the motor nerves also are interfered with."

That Hebra makes such a statement as this, is sure proof that he not only has seen cases where a paralysis of motion coëxisted with zoster, but that he also convinced himself that there was some connection between the two, as he is not apt to take anything on hearsay, nor to believe what he has not seen. There are reasons why in many cases of zoster, even if a lesion of the motor fibres did exist, it should have escaped notice. The most common situation of zoster is over one or more of the intercostal nerves, whence its synonym, zona. If we reflect on the nature and use of the intercostal muscles, whose motive power depends on these nerves, we shall see that one or two of them might be paralyzed without causing noticeable inconvenience. For we cannot voluntarily use them separately; and even if one or two did not contract, the others would be sufficient to carry on the respiration. When zoster is situated on the legs or arms, it is distributed over the course of the larger cutaneous nerves, whose motor fibres also might be paralyzed without causing any symptom. In zoster cervicalis, however,

* Hebra on Diseases of the Skin. Translated by Fagge. New Sydenham Society. London. 1866.

the case is different, as will be shown later. It is on account of a symptom which theoretically seems naturally to belong to a case of zoster, having escaped the observation of all writers on the subject except Hebra, that the following case has been thought worth reporting:—

W. K., æt. 33; married; mechanic. Patient has always enjoyed fair health up to about a year ago, although he has never been very robust. Some time in December, 1867, he had an acute affection of the lungs, for which he came under the care of Dr. John Homans. The diagnonis was pneumonia. He was ill about eight weeks, and made a slow recovery. Ever since that time he has been troubled with a cough, some pain in his chest, muco-purulent expectoration, loss of flesh, night-sweats, etc. In short, he has had the rational signs of tubercular trouble. During the last part of October, 1868, he had considerable pain, of a neuralgic character, about the left side of the face and neck. No history of exposure to cold could be obtained.

On the 1st of November, an eruption appeared on the left side of his neck. From his description, the eruption appears to have been vesicular, as he says it was covered with "blisters," some of which he pricked, and a clear, transparent fluid oozed out. There was no itching, but much smarting and burning. The neuralgic pain continued, but was somewhat less than before the eruption made its appearance. On November 11th, he first noticed what he describes as a numbness of the left side of his face. He could not close his left eye, his mouth was drawn to the right side, and he was much troubled by his food getting between his gums and his left cheek, from whence he had to continually remove it with his finger. There was no loss of motor power of the extremities, nor, as far as could be learned, was there any abnormal condition of sensation of any part of the body. After a day or two, the left eye became injected and painful.

I first saw the patient on November 19th; that is to say, on the nineteenth day of the eruption, and the eighth of the facial paralysis. He was a man of medium size, thin and pale, with an occasional hacking cough. No examination of the chest was made, but I have been informed by Dr. Homans that there is undoubtedly some solidification of the lower part of the right lung. The eruption on the left side of neck consisted of several patches about the level of the thyroid cartilage, and extended backwards and upwards. The patches were more or less oval, varied in size from one-fourth to one inch in diameter.

They were separated from each other by intervals of healthy integument. They consisted of red, inflamed bases, being covered partially by dirty yellowish crusts; and, where these were wanting, showing small, superficial, but angry-looking ulcerations. Each patch was surrounded by a well-marked red areola. One of the patches extended to the median line, in front, at level of thyroid cartilage; another reached almost to the median line behind, a little below the occipital protuberance; and there were some behind the ear. No vesicles or pustules could be seen; but it seemed probable, from the appearance of the crusts and ulcerations, that the former had been produced by the drying up of the vesicles and pustules, and the latter by their destruction. The left eye could not be closed, the left nostril was flat, and the mouth was drawn to the right side. The tongue was protruded straight, the uvula hung perpendicularly in the median line, and on saying ah! no one-sided action of the muscles of the soft palate could be detected. The conjunctiva of left eye was normal, but, by patient's account, it had been quite inflamed up to two days previous. Both pupils reacted normally to light, and were of equal size. Sensation of left side of face was normal, and on a careful examination, no evidence of any impairment of motion or sensation of any other part of body could be found. There was no discharge from the left ear. Patient stated that he could not hear as well with his left as with his right ear, and on testing with watch the power of perception of sound, did seem less on that side. The test, however, was not very satisfactory, nor could a definite answer be got from the patient as to the existence or not of this deafness previous to present illness. There was still some neuralgic pain about left side of face and neck, but much less severe than at first. There was not, and never had been, any twitching of left side of face.

After this, the course of the disease was steadily towards cure. The ulcerations healed, the crusts fell off, the pain diminished, and the power of motion slowly returned to the facial muscles. The improvement, in this latter respect, was so gradual that it was not noticed by either the patient or his wife, from day to day. At present, his face is perfectly natural. The eruption lasted about four weeks, and left scars behind it. The paralysis lasted a little longer.

Such, very briefly stated, is the case which I have thought worth reporting. For a consideration of it, three series of investigations suggest themselves:—

1st. As to the nature of the eruption.

2d. As to the nature of the paralysis.

3d. As to the nature of the connection between the two.

With regard to the nature of the eruption. Hebra's* definition of herpes is as follows:—"It is benign, runs an acute course, and is attended with the formation of miliary papules, which are arranged in groups, and generally undergo development into vesicles and pustules as large as lentils, or even still larger. It is never distributed over large tracts of the cutaneous surface, being always confined to certain definite regions. After remaining a few days, or as long as four weeks, it dries up into flat crusts, which often leave scars when they fall off." This definition applies to the whole genus herpes, one of the species of which is herpes zoster, which he describes as follows:—"I include under this name all those skin affections which present the characters of herpes, and in which the part of the surface occupied by the groups of vesicles corresponds to the distribution of certain cutaneous nerves, and which last (whether occurring on the head, trunk, or limbs) are confined to one-half of the body."† To the species zoster he gives different names, according to the part of the common integument on which the eruption is developed. One of the local varieties is thus described, under the name herpes zoster nuchæ, vel collaris:—"In this form of shingles the eruption first makes its appearance on the side of the neck, over the second and third cervical vertebræ, and extends thence upwards towards the lower jaw and face, forwards towards the larynx, and lastly downwards; a few clusters reaching even as far as the second rib."‡

It must be seen how perfectly these definitions apply to the case under consideration. It is true that, when seen by me, no vesicles were present, but the appearance of the crusts and ulcerations, on the nineteenth day of the eruption, was such as to convince any one that vesicles and pustules had existed, without falling back on the history of the case, as given by the patient himself. The situation of the eruption was over the second and third cervical nerves and their branches; two patches or groups of crusts were over the course of the superficialis colli; others were over the auricularis magnus and occipitalis minor, and others still over the occipitalis major. The course of the disease tallies exactly with Hebra's definition: the efflorescence was unilateral, coming up sharp to the median line in front, and nearly so behind; and, moreover, the characteristic neuralgic pain of herpes zoster was present. If this positive

* *Op cit.*, page 368. † *Op cit.*, page 372. ‡ *Op cit.*, page 376.

evidence is not enough, we have the negative evidence of exclusion. The only other cutaneous diseases, except herpes, to which an eruption having this location and appearance could belong, are eczema, sycosis, and some of the syphilodermata.

That it was not an eczema, is shown by the absence of itching, by the presence of ulcerations, by the large size of the vesicles, as described by the patient and proven by the size of the crusts, and, lastly, by the fact of a scar being left behind after the eruption had healed.

To exclude sycosis, we have the existence of patches beyond the region of the beard, as behind the ear, the sharply-defined character of the patches, with healthy skin between, the absence of any evidence of inflammation of the hair-follicles, and, lastly, the spontaneous cure in four weeks.

A syphilitic eruption with crusts and ulcerations would have had thicker crusts and deeper ulcerations, and other evidences of the presence of the syphilitic virus in the system would probably have been found.

Assuming, then, that the eruption was herpes zoster, let us glance at the paralysis, and see if any conclusion with regard to its nature can be arrived at.

From the muscles that were paralyzed, *viz.*, the left orbicularis palpebrarum, the levators of the upper lip and nostril, the left side of the orbicularis oris, and the left buccinator, the nerve affected must have been the left facial or seventh cranial nerve.

Facial paralysis is one of the most common lesions of motor function observed. Like other nervous lesions, it is generally divided by writers into two classes, the organic and functional; the former consisting of those cases in which some organic disease of the nerve or nervous centres exists, and the latter of those in which all we can get evidence of is an abnormal state of functional activity, without appreciable cause.

This classification is not a very satisfactory one, as when we call a paralysis functional, we simply state in other words that we know nothing about it. There is some reason in speaking of organic and functional diseases of the heart and stomach, for instance, as we see the functions of these organs often interfered with, while the organs themselves are perfectly healthy; as, for example, palpitation from excitement, or arrest of digestion from anger or fear. In such cases, we know that there is no disease of the organs, and fall back on the nervous system as being the cause of the trouble. But in case of derangement of the nerves themselves, we have nothing to fall back

upon, and we must consider that perfect integrity of nerve tissue must be accompanied with normal functional activity. There certainly are cases where we do not, and probably never shall, know what the lesion is, but that it exists must be admitted. Undoubtedly, half a century ago certain nervous affections would have been classed as functional, which now are shown by the microscope to be due to a hypertrophy of the connective tissue of the neurilemma, and a consequent pressure on the nerve fibres. The term, however, is a convenient one, if it is only used understandingly.

An organic paralysis of the facial nerve might be due to many causes, such as any disease of the encephalon or nerve itself, or pressure, as by blood, serum, or pus, or by a tumor of the brain itself, or of the meninges, by an exostosis, or by a depressed fragment of a fractured skull; or, in short, by any cause which should produce pressure on the brain or nerve.

This pressure might be situated either on that part of the nerve which lies within the cranium, or within the aqueductus Fallopii, or after it has emerged from the styloid foramen. Any destruction of continuity of the nerve would also cause paralysis. In the case under consideration, the whole series of intracranial lesions is excluded, by the fact that no other cranial nerves were affected, nor was there any paralysis of the spinal nerves distributed to the extremities. Had the trouble been in the Fallopian canal, it probably would have been due to caries of the bone, in which case we should have some symptoms, as pain, otorrhœa, etc. It has been noticed in many cases of hemiplegia, that one side of the tongue and half the uvula and soft palate are paralyzed. This is due to the fact that the facial nerve is connected with the gustatory nerve, by means of the chorda tympani, and also furnishes motor fibres to the azygos uvulæ and muscles of the soft palate through the large petrosal nerve, which goes to the spheno-palatine or Meckel's ganglion, from which the motor fibres descend to the above-mentioned muscles. Both these branches are given off from the facial within the aqueduct of Fallopius; and consequently, had there been any pressure or disease there, the tongue and uvula would have been paralyzed on that side. That there was no tumor pressing on the nerve after its exit from the styloid foramen, was evident through palpation and inspection. Moreover, the course of the disease was not that of an organic lesion. It came on suddenly, it is true, by the patient's account; but it only lasted about five weeks, and disappeared entirely. It may have come on so slowly that the patient may not have noticed it

until it was complete. This seems more than probable, when we remember that that was the way in which it disappeared.

Having, then, excluded organic lesions, in the common acceptation of the term, let us see by what other causes facial paralysis may be produced. Most writers on the subject consider that this affection is often due to the effect of cold or damp air, especially as a draught. Niemeyer, Grisolle, Brown-Séquard, and Flint, who certainly stand at the head of the ranks of medical writers in their respective countries, all agree in ascribing to this cause the great majority of cases of uncomplicated, functional, facial paralysis. One thing should be kept in mind, and that is, that of all the causative influences to which disease is ascribed, that of cold is one of the most unsatisfactory. It is an influence which, living as we do, can almost always be found, as few persons can look back for a few days without recollecting some occasion on which they were exposed to a draught of wind, or had gone from a high temperature into a lower one.

It is not meant to deny the influence of cold in sometimes causing disease; but every physician knows how often the formula "taken a little cold" is used to represent some entirely unknown pathological condition. Besides, in this case, strange to say, the patient could not refer to any particular exposure. Let us look farther, then, and see if some more definite diagnosis cannot be arrived at.

There is a class of functional or essential paralyses, about which much has been written. I refer to the so-called reflex paralysis; that is to say, to those cases in which paralysis follows peripherical irritation. Brown-Séquard, in his "Lectures on the Diagnosis and Treatment of Functional Nervous Affections,"* places at the head of the list of the causes of functional affections of the nerves," an irritation (by worms, by teething, or a decayed tooth, by a cold, by a burn), a wound, an inflammation, a neuralgia, etc., of centripetal fibres."

The fullest and most perfect account of these cases is that given by Dr. Graves, in a course of lectures given at the Meath Hospital at Dublin. I cannot do better than to quote an abstract of the lectures referring to this subject, as given by Dr. Graves in a later publication.† He says: "In the lectures to which I have already referred, I showed that this mode of accounting for all forms of paralysis, by referring them to original disease of the nervous centres, was in many cases incorrect, and proved, I think to the satisfaction of the class, and those who read the lectures, that a most important and influen-

* Page 15. † System of Clinical Medicine. Dublin. 1843. P. 396.

tial cause of paralysis had been hitherto nearly overlooked; a cause which, commencing its operation on the extremities, and not on the centres of the nervous system, might, by a reflex action, produce very remarkable effects on distant parts. I brought forward on that occasion many arguments, facts, and cases, to prove the possibility of such an occurrence, to show that it frequently happens that impressions made on the extremities of nerves will generate a morbid action in them; that this morbid action will be conveyed along their branches and trunks, to the spinal cord, or brain; and that, continuing its propagation, it may, by a retrograde course, be carried thence along the nerves to distant organs, and in this way give rise to disease in parts originally intact and healthy. I brought forward several instances to prove that when a certain portion of the extreme branches of the nervous tree has suffered an injury, the lesion is not confined merely to the part injured, but in many cases is propagated back, towards the nervous centres; and that in this way, not only the nervous filaments of the injured part may be affected, but also the main trunk of the nerve and other branches; or that the lesion may reach the brain, or spinal cord, and thus produce still more extensive effects on the system. What I endeavored to impress upon the class at that time was, that pain, numbness, spasms, and loss of power of muscular motion, may be produced by causes acting on the extremities of the nerves; and that such affections, commencing in the extremities of the nerves, may be propagated towards their centres, so as to be finally confounded with diseases originating in the centres themselves."

Many interesting cases are given, all of which go to show that paralysis of motion has been observed following, or coinciding with, the most different species of irritation of the periphery of the nerves. I will only quote one. "A young lady having wounded the inside of her ring-finger with a blunt needle, observed that she had, in consequence of the injury, a considerable degree of numbness, not only of the finger wounded, but also of the little finger next it. Here we find that an impression, made on the nerve of one finger, not only affects that finger, but travels backwards, so as to operate on the branch given by the ulnar nerve to supply that finger, and given off, observe, above the place of the wound, so that the phenomena were identical with those which would arise from an injury inflicted on the branch which would supply both fingers."*

Flint, on the other hand, is inclined to doubt the existence of

* *Op cit.*, p. 397.

reflex paralysis. He says:—"Cases have been reported by Graves, Romberg, Rayer, Brown-Séquard, and others, within late years, of paraplegia, apparently referable to various affections of different organs—*viz.*, the kidneys, bladder, uterus, ovaries, intestines, etc. A causative connection between the paralysis and the diseases seated in these organs, is inferred, from the fact that recovery from the former takes place after the latter are cured. It is supposed that the local diseases induce paralysis, by a morbid influence transmitted through the reflex system of nerves; and hence the term reflex paraplegia has been used to distinguish the affection in these cases. In order to establish a pathological connection between different local diseases and paralysis, it is necessary to show that the former precede the development of the latter, in a proportion of cases too large to be explained by merely accidental coincidence. It is questionable whether facts sufficient to show this have been yet accumulated. And when, on the other hand, it is considered that the various local diseases supposed to be adequate to the causation by a reflex influence, are not accompanied by paralysis in the vast majority of cases, the existence of a causative relation may reasonably be doubted in the cases in which the association exists."*

It must be confessed that there is some force in this argument. Let us see if the anatomical relations of the nerves affected in this case are such as to warrant the diagnosis of reflex paralysis, assuming that such a disease does exist.

The facial nerve derives its roots from the floor of the fourth ventricle, and from the groove between the olivary and restiform bodies. The posterior roots of the cervical nerves which contain the sensitive fibres, of whose lesion we have evidence, arise from the posterior columns of the cord. These points of origin are not so distant but that, could no other more plausible theory be found, we might suppose that the paralysis was due to a morbid influence transmitted along the cervical nerves, and caused by the eruption, to the cord, and thence propagated outward along the facial. Would not, however, the tongue and uvula be paralyzed, if the cause of the paralysis was sent out from the origin of the nerve?

While searching for the possibility of a connection between the roots of these nerves, we must not neglect to see if they are connected together at their periphery; and, in so doing, we find a most intimate connection by means of anastomoses.

These anastomoses, which connect the second and third cer-

* Principles and Practice of Medicine. Philadelphia. 1867. P. 635.

vical with the facial nerve, are three in number. 1st, the superficialis colli joins a descending branch of the facial; 2d, the auricularis magnus joins the facial by quite a large branch; and 3d, the occipitales major and minor inosculate with the posterior auricular. A glance at the case under consideration shows us that these very three branches of the cervical plexus, which have such an intimate connection with the facial nerve, are the ones over which the herpetic eruption was developed. We have, then, here an affection of two different nerves, which are anatomically very intimately connected at their peripherical ends; the lesion of the one being manifested by a paralysis of motion, and this is the only symptom we can expect, as the nerve consists only of motor filaments; that of the other being shown by neuralgic pain, but we cannot say but what the motor fibres also are affected, the distribution of the nerve being such, that if they were, no symptom would be given. Is it not logical to assume that these two affections spring from a common cause? What the cause may be we do not know, but we do know that for some reason, in most cases of zoster, we have a lesion of certain nerves; we know that to be so in our case; but, in addition, we find a lesion also of another nerve, which is intimately connected with the first.

It certainly seems more natural to ascribe these both to a common cause, than to go to reflex paralysis (which, perhaps, does not exist as a disease) for a solution. What could the possible connection between these two coëxisting affections be?

They might be simply the accidental result of coincidence.

They might stand to each other in the relation of cause and effect.

Or they might both be due to a common cause.

The intimate anatomical connection between the two nerves, makes it more than probable that there is something more than mere coincidence. The zoster could not be caused by the paralysis, as it preceded it; the paralysis might have been caused by the zoster, if reflex paralysis is admitted, and if enough has not been said to exclude it. Or, they might both be due to some common cause; as we suppose, some unknown lesion of the nerves themselves.

One other influence at whose door the causation of both lesions might be laid, should be mentioned, namely, cold.

It has already been stated that many cases of facial paralysis are supposed to be due to this agent, and by several writers a prominent position is given to cold in the etiology of herpes zoster.

I can only repeat what has been said, as to the unsatisfactory evidence of cold, as a cause of disease, especially where, as in this case, there is no evidence of any exposure to it.

I have endeavored to show that in this case of zoster, we have evidence of other nervous lesions besides neuralgia, which, if corroborated by other cases, will certainly show that the unaccountable neuralgic pain which so frequently accompanies zoster, is due to some lesion of the nerve itself.

Of course nothing has been proved, and undoubtedly this will pass with many as a case of reflex paralysis. Whether such a disease exists or not, I do not pretend to decide; but I have endeavored to show that this case is probably not an example of it.

Be this as it may, however, it has at least been shown that there probably is some connection between the zoster and facial paralysis in this case; and should other similar cases be noticed and reported, perhaps some light might be thrown on what is at present, as far as pathology and etiology go, a most obscure disease.

If this brief paper should be the means of calling the attention of those of the profession, who have the opportunity of seeing much cutaneous disease, to this point, it will accomplish all that the writer dares to hope for.—*Boston Medical and Surgical Journal.*

HOW TO TEST THE PURITY OF WATER.

It is of importance to be able to test the quality of water, not only when for special purposes absolutely pure water is required, but even in cases where such purity is not requisite, it may be of great interest to ascertain of what the impurities consist. The following short notice of the tests for the most commonly occurring impurities will be welcome and useful to many of our readers:—

Pure Water must satisfy the followinß Conditions.

1. It must have no residue whatever when evaporated in a clear porcelain or platina dish.

2. It must form no precipitate with a solution of nitrate of silver, which would indicate common salt, some other chloride, or hydrochloric acid.

3. It must not precipitate with a solution of chloride of barium, which would indicate a sulphate or sulphuric acid.

4. It must form no precipitate with oxalate of ammonia, as this would indicate some soluble salt of lime.

5. It must not assume any dark or other shade of color when passing sulphuretted hydrogen gas through it, or mixing it with the solution of a sulphide salt, as this would indicate the presence of lead, iron, or some other metal.

6. It must not become milky by the addition of lime-water, or a clear solution of sugar of lead, as this would indicate carbonic acid.

7. It must not discolor by adding solutions of corrosive sublimate, or chloride of gold, or sulphate of zinc, which discoloring would indicate the presence of organic substances. When boiling water with chloride of gold, the least trace of organic matter will reduce the gold, and color the water brown.

Results of these Tests.

1. Almost all spring-waters are found to leave a residue upon evaporation.

2. Common salt is not only found in most springs and rivers, but even in rain-water, many miles inland, when the wind blows from the ocean.

3. Sulphuric acid and sulphates are found in many springs. The Oak Orchard Spring, N. Y., for instance, is very rich in the free acid.

4. Waters from lime regions all contain lime in large quantities; and, in fact, this is the most common impurity of spring-waters.

5. Iron is contained in large quantity in the so-called chalybeate springs; also copper and other metals are encountered; lead incidentally, by the lead tubes through which it often is made to pass.

6. Carbonic acid is the most common impurity; even distilled water is not always free from it. Water will naturally absorb carbonic acid gas from the atmosphere, which latter always contains it; its principal source of supply being derived from the exhalations of man and animals.

7. Organic substances are often found in the water of running brooks, streams, and rivers, and are of course obtained from the vegetation and animal life in the water itself, and from the shores along which it floats.

Remarks.

1. The healthfulness of water depends on the nature of the residue left after evaporation; for many chemical and other operations where absolutely pure water is required, the leaving of residue at once proves the water unfit for use.

2. The existence of small quantities of common salt in the water is not objectionable, it being not injurious to health.

3. Sulphuric acid and sulphates may be objectionable for daily use; however, such waters are used medically to stop diarrhœa and excessive tendency to perspiration.

4. Lime-waters do not agree with some constitutions, producing diarrhœa and divers disturbances; very small quantities of lime, however, are not injurious.

5. Iron is healthy, and is a tonic; in fact, this metal and manganese are the only ones which may be used in large doses, not only with impunity, but even with benefit; however, there is also a limit. Overdoses of iron may produce diarrhœa, and slight eruptions of the skin, or pimples.

6. Carbonic acid is not objectionable when drinking the water; on the contrary, it makes it more palatable, and most mineral waters owe their reputation to this substance.

7. Organic substances are perhaps the most objectionable, principally when decaying; such waters may even propagate diseases, and require careful filtering, or boiling, or both, to make them fit for internal consumption.—*Scientific American.* —*New York Medical Journal.*

THE DOCTRINE OF ANIMAL QUINOIDIN.

A discussion on this subject in the Paris Biological Society, is referred to in the *Gazette Hebdomadaire*, from which we translate the following passages:—

Two years ago, Dr. Bence Jones, of the Royal Society of London, in the course of his researches on the time required for certain substances to traverse the tissues, was much embarrassed in regard to sulphate of quinia. To demonstrate the presence of this salt, Bence Jones and Dr. Dupré conceived the ingenious idea of subjecting the tissues to the action of acids, and examining the solutions thus obtained by means of the fluorescence produced by electric light—such fluorescence being presumed to indicate the presence of quinia. Great was their surprise to find the same fluorescence in animals that had not taken the quinia salts, as well as those that had. They came to the conclusion that there exists in the economy a substance capable of producing the same fluorescence as the sulphate of quinia. Bence Jones infers the existence of an animal quinoidin. He considers this new alkaloid an albuminoid derivative, which he places between casein and indigotin.

According to the same writer, this quinoidin plays an impor-

tant part in the phenomena of nutrition: it acts as a conservative agent in retarding organic combustion. Having noticed the disappearance of the natural fluorescence in the urine of patients with intermittent fever, he regarded as possible the destruction of the quinoidin by malarious poison. Then, the more rapid combustion of the tissues would produce fever; and thus we may comprehend the mode of action of febrifuges such as quinia and arsenic; substances which, like the supposed quinoidin, have the property of retarding organic combustion.

Dr. Chalvet has confirmed the statements of Bence Jones, and demonstrated by his experiments that there exists in the tissues a substance capable of giving a fluorescence absolutely comparable to the phenomena of refrangibility produced by sulphate of quinia. He also demonstrated that this fluorescence often disappears in intermittent fevers; but he does not accept the interpretation of the English author, on the origin of the assumed quinoidin. He has, in fact, demonstrated that this fluorescent substance exists in most aliments, especially in wine and vegetable substances. He concludes, from his researches, that the assumed quinoidin is not an albuminoid derivative; that it is introduced into the organism with the ingesta; that it mingles with the humors and tissues like iron, but, unlike iron, it is not generated in the organs. Possessing the property of rapid elimination by the secretions, we can comprehend how a diet somewhat reduced may cause its disappearance from the urine, and thus explain the asserted destruction of quinoidin by fever. Dr. Chalvet inclines to regard this substance as analogous to quinia; and, as it is produced in infinitesimal quantity in almost all vegetables, its constant presence in the solids and fluids of all animals is easily explained. But this does not prove that the substance, though in minute quantity, is incapable of performing an important part in the phenomena of life; for we know that the mere presence of a few particles of certain matters may develop, by catalysis, forces of great relative magnitude.—*Pacific Medical and Surgical Journal.—American Journal of Dental Science.*

Oceanic Life at Great Depths.—At a meeting of the Royal Microscopical Society on Wednesday night, the 9th instant, Dr. Carpenter anticipated his paper already presented to the Royal Society by offering some remarks on, and exhibiting specimens illustrative of, his recent deep-sea inquiries. It will be in the memory of our readers that in the autumn Dr.

Carpenter and Professor Wyville Thompson, of Queen's College, Belfast, went out, under government auspices, to conduct certain biological and physical investigations into the characters of the fauna and the temperature of the water at great depths. The expedition was carried out with the greatest success, and with the most remarkable results. The researches of Dr. Wallich and other able zoölogists had determined that the dictum of Forbes respecting the depth at which animal life existed was unfounded, and that animals existed at a depth of several hundred fathoms in the ocean. Dr. Carpenter now confirms this fact, and extends it in many important directions. In the very interesting sketch of his excursion given by Dr. Carpenter it was shown that even at depths so great as 650 fathoms in a line south-west (?) of the Faroe Islands the dredge brought up not only Globigerinæ and similar low forms of animal life, but representatives of all the great invertebrate types. Many of the specimens of Protozoa captured at this depth were exhibited by Dr. Carpenter, and some of them were certainly extraordinary samples of classes whose members are generally extremely minute. Indeed, these discoveries of Dr. Carpenter open up to us quite a new phase of animal life, and reveal a vast field for physiological speculation and inquiry. Of the specimens exhibited under the microscope we noted the following: Cristelaria, Textularia, Cornuspira, Trochamina, Lituola, Rhabdammina and Astrorhiza limicola. The last especially is a most remarkable creature, and one likely, we should think, to afford zoölogists many difficult problems for solution. In reference to the results of the physical discoveries, one of the most singular and noteworthy is that of temperature. Several carefully conducted soundings have convinced Dr. Carpenter and his colleague that whilst the surface water has an almost invariable temperature of 52°, the heat at great depth varies exceedingly. Thus at one point in their voyage they found, at a depth of 500 fathoms, the temperature was 32°—a fact which is explained by the supposition of a cold Arctic stream flowing from the north-east, and apparently coming between the fork of the Gulf Stream. Another interesting fact established by these inquiries is, that even at a temperature in the ocean almost that of our freezing-point there are an abundance and variety of animal forms which could not have been predicated. Dr. Carpenter's researches will soon be laid before the public *in extenso*, but in the meantime we could not resist bringing the above extraordinary and unexpected results under the notice of our readers.—*Medical Times and Gazette, Dec. 12, 1868,* and *Med. News.*

The Clinique.

FROM THE SERVICE OF PROF. N. S. DAVIS, IN THE MEDICAL WARDS OF MERCY HOSPITAL, DECEMBER 30, 1868.

REPORTED BY W. A. BARSTOW.

GENTLEMEN:—This young man came here from Waukegan, for the purpose of a careful examination of his case. He states that about one year ago he received an injury, by being struck by a wheel weighing about 50 lbs., which was thrown off the shaft while making some 350 revolutions per minute. The blow was received across the right shoulder, extending down below the scapula. At the time he felt no pain, and there was no soreness of the parts until about two weeks after, when he says he felt a lameness and soreness in the side, midway between the 7th and 8th ribs.

The soreness continued to increase for three months, when there appeared an abscess, which was opened by his attending physician. This abscess has continued to discharge ever since; sometimes the pus is thin, and sometimes of a thicker quality. At present, the patient complains of a pain in the right hypochondriac region. You notice, by percussion, that the hepatic dulness is about normal. If the liver had furnished this abscess, it would necessarily be enlarged; but, as it is about normal, I would say at once that the liver is not involved. The pain was not such as to indicate pleurisy; and, as the patient has had no cough, nor difficulty in respiration, we can safely say it is not pneumonia.

I should think, when the wheel struck him, it produced sufficient inflammation near the head of the rib to result in suppuration, the pus following along between the pleura and rib, until it could find a point of escape. It has never healed, owing to the denuded state of the rib, or portion of vertebra; most likely the former; nor will it heal until the necrosed or carious portion of the rib is removed, unless the pus changes its course.

The present symptoms are pain between the umbilicus and right hypochondriac region. There also seems to be an irregular contraction of the abdominal muscles. If you were to go directly down at the seat of pain, you would strike the upper part of the psoas muscle. There is already some swelling and tenderness in that part, increased by exercise.

The patient says that he feels so weak, and his back aches so badly towards night, that he can hardly sit up. Says he never had any cough, no headache to speak of. By careful introduction, the probe can be passed under the edge of the rib to its inner surface, and backward towards the junction of the rib with the spine. Patient says the abscess was opened three times, the last time about the first of September. The Doctor first introducing a director into the fistula, and cutting in the direction of the rib backwards. After which, he burned it out with caustic.

In this case, I have no hesitation in regarding its origin as at the junction of the rib with the vertebra. Up to the present time, the patient has kept a very good degree of health; but he says that he has lost flesh within the past two weeks, or since the pain commenced in the abdomen. From the existence of this abdominal pain, it is highly probable that the pus is taking a new direction down the spine, along the course of the psoas muscle. The spasmodic action of the abdominal muscles is evidently due to the irritation of the anterior branches of the lower intercostal nerves.

The disease is evidently caries (either of the head of the rib or of one of the vertebræ, probably the former); and the pus will be more likely to gravitate downward, ultimately appearing in the form of an abscess just below Poupart's ligament, as the symptoms are such as to plainly indicate present irritation and fulness in the upper part of the psoas region.

There are two methods of treatment that might be adopted in this case:—1. The surgical exsection of the rib, for the removal of the diseased bone. 2. The patient may be placed in a horizontal position, inclining a little towards the diseased side, and kept perfectly quiet for four or five weeks, with the

internal administration of tonics and alterative remedies. You would accomplish two objects by this horizontal position, *viz.:* decrease the gravitation of pus downwards, and put the parts at rest. After this, I would recommend a spinal support, which will not admit of any rotary motion of the parts, and exactly the same as that employed in the treatment of any angular curvature; and then the patient may be allowed moderate outdoor exercise.

Laying surgical aid aside, I think this is the only treatment that will be apt to prove beneficial. Without treatment, he will continue to grow worse, and finally have an abscess at Poupart's ligament, becoming more feverish and emaciated daily.

As the attempt to exsect the head of the rib involves a serious operation, and we cannot be certain that the disease does not affect also the vertebræ, we should not advise an immediate resort to that method of treatment. By confining the patient to a strictly horizontal position, keeping the present opening as free as possible, and giving him three times a day a teaspoonful of the following tonic and alterative mixture, it is quite possible that the further extension of the suppurative process would be arrested, with a removal of all pain from the side and abdomen:—

℞. Tinct. Cinchonæ, ---------- ℥ij.
Fl. Ext. Conium, ---------- ℥j.
Bichlorid. Hydrarg., ---------- 1 gr.
Mix.

After this prescription has been used three weeks, he may take in its place the syrup of iodide lime or iodide of iron.

NOTE.—*February 10th, 1869.*—The patient returned home the day following the above clinic, taking a letter to his physician. The treatment above indicated has been carried out to the present time, and information came from his attending physician two days since, saying that the patient was making good progress towards recovery.

Book Notices.

Practical Observations on the Etiology, Pathology, Diagnosis, and Treatment of Anal Fissure. By WILLIAM BODENHAMER, A.M., M.D., Professor of the Diseases, Injuries, and Malformations of the Rectum, Anus, and Genito-Urinary Organs. Illustrated by numerous Cases and Drawings. New York: William Wood & Co., 61 Walker Street. 1868. 199 pages. Price, $2.25.

Essentials of the Principles and Pactice of Medicine: A Hand-Book for Students and Practitioners. By HENRY HARTSHORNE, M.D., Professor of Hygiene in the University of Pennsylvania, etc., etc., etc. Second Edition, revised and improved. Philadelphia: Henry C. Lea. 1869.

This is a small-sized octavo, of 425 pages, containing an admirably-condensed summary of the principles and practice of medicine. We have always doubted the real utility of such works. That they are a great convenience to students and practitioners of doubtful industry, there can be no doubt; and, as there are many such in the profession, there is an active demand for such works.

We do not hesitate to say that this work of Dr. Hartshorne is the very best of its kind.

We have also received from the well-known publishing house of Henry C. Lea, of Philadelphia, through the hands of Cobb, Pritchard & Co., of this city, the following work:—

Clinical Lectures on Diseases of the Urinary Organs: Delivered at the University College Hospital. By Sir HENRY THOMPSON, Surgeon Extraordinary to H. M. the King of the Belgians; Professor of Clinical Surgery; and Surgeon to the University College Hospital. With Illustrations. Philadelphia: Henry C. Lea. 1869. 204 pages.

The volume contains twelve Lectures on the following topics:—First, Introductory Diagnosis; second and third, Stricture

of the Urethra; fourth, Hypertrophy of the Prostate, and its Consequences; fifth, Retention of Urine; sixth, Extravasation of Urine and Urinary Fistulæ; seventh, Stone in the Bladder; eighth, Lithotrity; ninth, Lithotomy; tenth, Cystitis and Prostatitis; eleventh, Diseases of the Bladder, Paralysis, Atony, Juvenile Incontinence, Tumors; twelfth, Hæmaturia, and Renal Calculus.

A Conspectus of the Medical Sciences: Containing Manuels of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery, and Obstetrics, for the Use of Students. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, Auxiliary Faculty of Medicine, etc., etc., etc. With 310 Illustrations. Philadelphia: Henry C. Lea. 1869.

In this work Dr. Hartshorne has endeavored to do for all the ordinary branches of medical science what he had accomplished for practical medicine alone, in the work just noticed. In this conspectus we have a carefully condensed summary of all the branches named above, in one volume of 1002 pages. Both works are for sale by Cobb, Pritchard & Co., 81 Lake St.

A Hand-Book on Uterine Therapeutics, and of Diseases of Women. By EDWARD JOHN TILT, M.D., Member of the Royal College of Physicians; Consulting Physician to the Farringden General Dispensary; Fellow of the Royal Medical Chirurgical Society; etc., etc., etc. Second American Edition; thoroughly Revised and Amended. D. Appleton & Co., 90, 92, and 94 Grand Street, New York. 1869.

This is a full sized octavo volume of 345 pages, published in good style, except the type are too small for pleasent reading. The merits of the author are well known; and this edition of his work ought to be in the hands of every practitioner; for the special purpose of counteracting the modern tendency to reduce uterine therapeutics to the knife, the caustic, and mechanical appliances. We commend it to our readers as a book worth buying. For sale by S. C. Griggs & Co., Chicago.

Editorial.

College Commencement.—The public Commencement of Chicago Medical College will take place in the College Hall, 1015 State Street, on the *fourth Tuesday* in March. There will be a public examination of the candidates for Graduation and the *reading* of Theses during the afternoon of the preceding day. The Commencement exercises proper will take place on the afternoon of Tuesday, and will consist in the distribution of Certificates to the undergraduates, the announcement of awards, the conferring of the Degrees, and a Valedictory Address by Prof. J. S. Jewell. Members of the profession, both in the city and the country, are invited to attend all these exercises.

Illinois State Medical Society.—We again remind our readers, that the next Annual Meeting of the Illinois State Medical Society will be held in Chicago, on the *third Tuesday* in May next. Drs. R. C. Hamill, S. Wickersham, Thomas Bevan, E. Powell, and G. C. Paoli, constitute the Committee of Arrangements.

Alumni Association of Chicago Medical College.—The second regular Annual Meeting of this Association will be held in the College, on Monday evening, twenty-second of March, at half-past 7 o'clock. An address will be delivered by the President of the Association, and matter of interest to all will be presented for consideration. Previous to which, it is earnestly to be hoped each *Alumnus* "will address a letter to the Secretary, giving a short history of his professional experience during the preceding year, and stating, at length, anything of special interest that may have come under his observation."

All Alumni of the Institution are earnestly invited to be present, to participate in, and contribute to, the interest of the meeting.

S. A. McWilliams, *Sec'y*,
166 State St., Chicago.

DELEGATES TO AMERICAN MEDICAL ASSOCIATION, ATTENTION.

The undersigned having been appointed a Committee to make arrangements for commutation of fare to and from the meeting of the Association, to be held in New Orleans, on the first Tuesday in May next, would have their work much facilitated if all those who wish to take the most direct, *time-saving* route, (which is by railroad,) will immediately inform the Committee of their wishes. We have ascertained that liberal commutation can be obtained from this city to New Orleans and return, provided a certain number of Delegates and Members will pledge themselves to go.

N. S. Davis,
R. C. Hamill,
A. Fisher,
} *Committee.*

Note.—The two principal routes of travel from this section of country to New Orleans are:—1st, All the way by Railroad, with only one *change*, which is at Louisville, and the journey accomplished in two and a half days, from Chicago to New Orleans. 2d, From Chicago to Cairo by Illinois Central Railroad, and thence by steamboat down the Mississippi to New Orleans, which cannot be safely estimated to consume less than *five* days.

The regular fare from Chicago to New Orleans by both these routes is $38.00. From information furnished by railroad agents here, and from a letter just received from Dr. Jas. F. Hibberd, of Richmond, Indiana, it is probable that arrangements can be made for commutation tickets over both these routes.

To complete the arrangements, it is very desirable that all the delegates and members of the Association who intend to go to New Orleans from the North-West, should immediately notify the Local Committee here, specifying the route they would prefer to go.

At a recent meeting of the Chicago Medical Society, the following form of a law was agreed to, and recommended to the

Legislature for adoption, by a nearly unanimous vote. It differs but little from the law now in force in Ohio, and is as follows:—

"AN ACT TO PROTECT THE PEOPLE OF ILLINOIS FROM EMPIRICISM AND IMPOSITION IN THE PRACTICE OF MEDICINE AND SURGERY.

"SECTION 1. *Be it enacted by the People of the State of Illinois, represented in General Assembly,* That it shall be unlawful for any person within the limits of said State, who has not attended at least two full courses of instruction, and graduated at some school of medicine, either of the United States or of some foreign country, or who cannot produce a certificate of qualification from some State, district, or county medical society, composed of not less than twelve active members, and is not a person of good moral character, to practise medicine in any of its departments for reward or compensation, or attempt to practise medicine, or prescribe medicine or medicines, for reward or compensation, for any sick person within the said State of Illinois.

"§ 2. Any person living in the State of Illinois, or any person coming into said State, who shall practise medicine, or attempt to practise medicine, in any of its departments, or perform, or attempt to perform, any surgical operation upon any person within the limits of said State, in violation of section one of this act, shall, upon conviction thereof, be fined not less than fifty, nor more than one hundred, dollars for such offence; and, upon conviction for a second violation of this act, shall, in addition to the above fine, be imprisoned in the county jail of the county in which such offence shall have been committed for the term of thirty days. And in no case wherein this act shall have been violated, shall any person so violating receive a compensation for services rendered: *Provided,* Nothing herein contained shall in any way be construed to apply to any person practising dentistry.

"§ 3. This act shall take effect and be in force on and after the first day of September, 1869."

Individually, we do not anticipate much benefit from legislation of any kind concerning the practice of medicine. If we are to have any law, however, we should much prefer this simple enactment to any other that has been proposed; unless we could have a thoroughly competent Board of Examiners for

the State, selected in some way that would secure the freedom of its members from partisanship, and by whom all persons proposing to practise medicine and surgery in this State should be thoroughly examined, whether they be graduates of some medical school or not.

THE HEALTH-LIFT—ITS THEORY AND PRACTICE.—This is the title of a neatly-printed and bound monograph, written, we presume, by Frank W. Reilly, M.D., who has charge of a Health-Lift establishment in this city. By Health-Lift here, is meant a regular daily exercise at lifting, for the purpose of developing the strength and health of the physical system. As practised under the direction of Dr. Reilly, it is a decided improvement over the ordinary gymnastic exercises. Regular habitual muscular exercise, as a means of preserving and restoring health, should receive far more attention than has hitherto been given to it.

ERRORS.—In the February number of the EXAMINER, Dr. Curtis relates an unusual case of retention or suppression of urine.

In setting up the article, the printers omitted a few words, which made it read, "20 grs. of calomel every three hours." It should have been, a "powder of calomel 4 grs., jalap 6 grs., and cream tartar 20 grs."

On page 89 of the same number of the EXAMINER, is a prescription which should have been printed ounces instead of drachms.

A REBELLIOUS CASE OF APHONIA, instantly cured by electrical excitation of the inferior laryngeal nerve, has been communicated by Dr. R. Philipeaux to the *Gazette Medicale de Lyon*, 1868, No. 30.—*Medical Record.*

THE CHAIR OF OBSTETRICS AND MED. JURISPRUDENCE IN THE MASS. MED. COLLEGE FILLED.—Dr. Chas. E. Buckingham, formerly Adjunct Professor of Theory and Practice, has been appointed by the Corporation to the vacant chair of Obstetrics and Med. Jurisprudence in the Massachusetts Medical College. —*Ibid.*

THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—We hope that the approaching meeting of the American Medical Association will be fully attended by members of the profession from the Northern States. The season of the year, the convenience of access to New Orleans by steamboat, and the well-known delightful climate of the lower Mississippi in the spring, are inducements which should alone decide many a hard-worked doctor to take the trip, "and so to interpose a little ease."

The expensiveness of the journey will indeed deter many, and this difficulty, therefore, should be reduced as much as possible. A steamboat could undoubtedly be chartered at Cincinnati or Louisville for the round trip, at a very much less rate per person than for each to go by the usual conveyances. While at New Orleans those who wished could take their meals and sleep on board.

All those who are desirous of entering into this arrangement should send their names and address, and the names of the members of their families they might wish to accompany them, to Dr. WM. B. ATKINSON, Permanent Secretary, No. 1400 Pine Street, Philadelphia, Pa., without delay. Let as many as can, conclude to go, as in this case it is not only the more the merrier, but also the more the better fare and the lower price.

It is understood that unless enough names are received to make this method of taking the journey the cheapest, it will not be adopted.—*Medical and Surgical Reporter.*

THE FUNGUS THEORY OF DISEASE DOUBTFUL.—In a short communication to the *Centralblatt*, Drs. Bergmann and Schmiedeberg describe a crystalline substance, to which they have applied the name "Sulphate of Sepsin," obtained from putrefying materials, and which they believe represents the proper poison of organic substances undergoing this kind of fermentation. It is obtained by diffusion through parchment-paper, precipitation with corrosive sublimate from an alkaline solution, removal of the mercury by silver, of silver by sulphuretted hydrogen, evaporation, and purification of the residue. Large well-defined, acicular needles are thus obtained, which are deliquescent in the air, and, exposed to heat, melt and carbonize. They possess a powerfully poisonous action. A solution containing scarcely more than one-hundredth of a gramme was injected into the veins of two dogs. Vomiting was immediately induced, and after a short time diarrhœa, which in the course of an hour became bloody. After nine hours the animals were killed, and

on examination, their stomachs and large intestines were found ecchymosed, and the small intestine congested. Frogs could be killed in the same manner.—*Lancet, Oct. 17, 1868, p. 518.*

A Successful Operation for the Transfusion of Blood was recently performed by Dr. Enrico Albanese at the hospital of Palermo, Sicily. A youth aged seventeen, named Giuseppe Ginazzo, of Cinisi, was received at that establishment on the 29th of September last, with an extensive ulceration of the leg, which in the end rendered amputation necessary, the patient being very much emaciated, and laboring under fever. The operation reduced him to a worse state than ever, and it became apparent that he was fast sinking; the pulse being imperceptible, the eyes dull, and the body cold. In this emergency, Dr. Albanese had recourse to the transfusion of blood as the only remedy that had not yet been tried. Two assistants of the hospital offered to have their veins opened for the purpose, and thus at two different intervals 220 grammes of blood were introduced into the patient's system. After the first time he recovered the faculty of speech, and stated that before he could neither see nor hear, but felt as if he were flying in the air. He is now in a fair state of recovery.—*Ibid.*

A New Urethroscope—and we like the name better than *endoscope*—has been devised by Dr. Langlebert, of Vichy, which can readily be used by daylight, or by the illumination of an ordinary lamp or candle. It is very simple in construction. A full description, with woodcut, appears in *La France Medicale*, 1868, No. 77.—*Ibid.*

Royal Institution.—Dr. Odling, Prof. Chem. at St. Bartholomew's Hospital, has been elected Fullerian Prof. Chem. in this inst. to succeed the illustrious Faraday.

The Academy of Sciences of Paris has received the sum of 60,000 francs, the interest of which will every third year be offered as a prize for the best essay on embryology. M. Serres was the judicious owner.—*Medical and Surgical Reporter.*

Ovariotomy.—Dr. Dunlop, of Springfield, Ohio, since 1843, has performed ovariotomy on 38 patients. Only two were without anæsthetics; and all were by the long incision. Thirteen of his patients were unmarried. Nine died after the operation. Three of the successful cases died of other diseases afterwards;

the rest are all now living, and in good health.—*N. Y. Med. Record.*

To Prevent the Coagulation of the Blood during Transfusion.—Dr. J. Braxton Hicks (*British Medical Journal*) accomplishes this by a solution of phosphate of soda mixed with the blood as it flows from the supplier. The greatest danger in the operation is thus avoided, whilst the solution is in no degree incompatible with the integrity or normal qualities of the blood. —*Pacific Medical and Surgical Journal.*

Solvent for Gallstone and Cholesterine.—Dr. Buckler (*Am. Jour. of Med. Science*) recommends the following prescription in the cholesterine diathesis:—℞. Hydrat. succin. of iron, ℥iss.; water, ℥iss. Dose, a teaspoonful after each meal, to be taken six months, if necessary.—*Medical Record.*

There are so many quacks in London who assume the title of M.D., that the publishers of the London Directory have determined to expunge in future editions of that work, from the list comprising the names of physicians and surgeons, those not registered under the Medical Act of 1858. If our publishers of directories would dare to follow such an example, what a small list of real doctors there would be!—*Medical Record.*

Antidote for Carbolic Acid.—Next to the stomach-pump, in poisoning with this acid, the best antidote is large doses of olive or almond oil, with a little castor oil. Oil is a solvent, and therefore a diluent of carbolic acid, and may be used to stop the corrosive effect of the acid, when its action on the skin is too violent.—*Journal of Cutaneous Medicine.*

Pensions to Widows of Physicians.—The Italian Chamber has passed an act granting to the widows of physicians who fell victims to their calling during cholera epidemics, a pension of from 100 to 200 dollars a year, according to the number of children.—*N. Y. Med. Record.*

Best Book for Everybody.—The new illustrated edition of Webster's Dictionary, containing three thousand engravings, is the *best book for everybody* that the press has produced in the present century; and should be regarded as indispensable to the well-regulated home, reading-room, library, and place of business.—*Golden Era.*

Mortality for the Month of December, 1868:—

Accident, drowned	2	cerebral, and spinal,	1	Meningitis tubercular,	1
" burned,	1	Dropsy,	5	Mouth, canker sore	1
" overdose of morphine,	1	" ovarian,	1	Metro-peritonitis,	1
" jumping fm. window,	2	Dysentery	2	Miscarriage,	1
" run over by		Enteritis,	1	Nephritis, acute,	1
" wagon,	2	Enterocolitis	1	Old age,	5
" R. R. cars,	1	Encephatitis,	1	Œdema, pulmonium, and diphtheria,	1
" scalding	2	Epilepsy	1	Paralysis,	1
Abdominal aorta, aneurism of,	1	Exposure and neglect,	1	Parotitis, and encephatitis,	1
Angina,	2	Fever, puerperal,	4	Peritonitis,	5
Apoplexy,	3	" scarlet,	31	Peritonæum, cancer of	1
Aphthæ,	1	" " malignant,	2	Phthisis pulmonalis,	21
Atrophy,	1	" " & angina,	1	" and pneumonia	1
Atelectasis pulmonium	1	" " & convulsions	1	Pneumonia,	31
Asphyxia,	1	" " & laryngitis,	1	" broncho,	2
Biliary calculi,	1	" " & nephritis,	1	" typhoid,	7
Births, premature,	7	" typhoid,	19	" and diphtheria,	1
" still	37	Gastritis	1	" and old age	1
Brain, congestion of,	6	Hæmatemesis,	1	Phlebites, uterine, and erysipelas,	1
" disease of,	1	Hepatitis,	1	Rectum, cancer of,	1
" effusion into vertricles,	1	" chronic and excitis,	1	Skull, fracture of,	1
" inflammation,	5	" " and dropsy,	1	Stomach, cancer of,	2
" softening of,	1	Heart disease of,	4	" and bowels, inflammation of,	1
" " and old age,	1	" " and dropsy	1	Suicide by pistol shot,	1
Bronchitis,	5	" dropsy of,	1	" hanging,	1
" capillary,	4	" congestion of, and phthisis pulmonalis,	1	" morphine,	
Carditis rheumatic,	1	" organic disease of	1	" from insanity,	1
Chord, umbilical injury of,	1	" hypertrophy of,	1	Small-pox,	2
Cholera-infantum,	1	" valvular disease	1	Tabes mesenterica,	11
" morbus,	1	Hydrocephalus,	5	Tetanus,	2
Childbirth	1	" acute,	1	" and convulsions	1
Convulsions,	40	Hydropericarditis,	1	Teething,	4
Croup,	10	Hydrothorax,	1	Throat, ulcerated sore,	1
" membranous,	3	Inanition,	8	Uterus, hemorrhage of,	1
Debility, general,	2	Intemperance, and exposure,	3	" cancer of,	1
Diarrhœa,	2	Liver, cirrhosis of,	1	Unknown,	1
" chronic,	2	" organic disease,	1	Vitality, deficient,	3
Diphtheria,	6	Lithotomy and urinary infiltration,	1	Varicella,	1
" and angina	1	Lungs, congestion of,	4	Whooping-cough,	6
" and paralysis,	1	Measles,	3	" " and pneumonia,	1
" pneumonia	1	Meningitis,	6		
Disease, congenital,		" acute,	1	Total,	374
		" cerebro-spinal,	3		

AGES.

Under 1	109	20 to 30	27	70 to 80	8
1 to 3	71	30 to 40	46	80 to 90	1
3 to 5	23	40 to 50	23	Unknown,	2
5 to 10	26	50 to 60	10		
10 to 20	14	60 to 70	14	Total	374

40
203
2
245
374

COMPARISON.

Deaths in Dec., 1868, -- 374 | Deaths in Dec., 1867, --409 | Decrease, -- 25
Deaths in Nov., 1868, ---------- 401 | Decrease, ---------- 27

Males, ---------- 203 | Females, ---------- 171 | Total, ---------- 374
Single, ---------- 277 | Married, ---------- 97 | Total, ---------- 374
White, ---------- 368 | Colored, ---------- 6 | Total, ---------- 374

NATIVITY.

Bavaria, ----------	2	England, ----------	11	Poland, ----------	1
Bohemia, ----------	7	France, ----------	1	Scotland, ----------	5
Canada, ----------	5	Germany, ----------	39	Sweden, ----------	8
Native Chicago, ----	71	Holland, ----------	3	Unknown, ----------	2
Foreign " ----	127	Ireland, ----------	46		
U. S., other parts, ---	42	Norway, ----------	4	Total, ----------	374

MORTALITY BY WARDS FOR THE MONTH.

Ward.	Mortality.	Pop. in 1868.	One death in	Ward.	Mortality.	Pop. in 1868.	One death in
1---	7	9,094	1,299	14---	20	14,839	742
2---	15	13,074	871	15---	31	21,078	680
3---	20	15,076	753¾	16---	12	15,465	1,288¾
4---	20	17,796	889¾	County hosp.	7		
5---	22	16,033	728¾	Chi. River,	1		
6---	25	13,083	523⅓	Mercy Hosp.	2		
7---	56	25,492	455 1-5	St. Luke's H's.	3		
8---	28	15,813	564¾	Immigrants	6		
9---	15	19,297	1,286⅓	Marine Asyl.	2	St. Jo. Orph. Asyl.	1
10---	13	12,925	840½	Soldiers Home	1	Prot. Orph. Asylum	2
11---	20	14,340	717	L. Michigan,	1	Home for Friendless,	7
12---	18	17,485	971½				
13---	19	11,164	587½				

Total, ---------- 374

MORTALITY FOR THE MONTH OF JANUARY, 1869:—

Accidents, ----------	6	" pulmonalis,	1	Dropsy of abdomen, --	1
Abscess, lumbar, ----	1	" & capillary	3	Dysentery, ----------	1
Anæmia, ----------	1	Cancer, ----------	2	Endocarditis and convulsions, ----------	1
Angina, ----------	1	Cerebritis, ----------	1	Enteritis, ----------	2
Apoplexy, ----------	3	Cholera infantum, ----	1	Epilepsy, by worms--	1
" and splinetis	1	Convulsions, --------	49	Erysipelas, ----------	3
Aphthæ ----------	1	Croup, ----------	5	" phlegmonous, ----	1
Ascites, ----------	2	" membranous, --	5	" and pyæmia	1
Atelectasis pulmonium	1	" spasmodic, ----	1	Exhaustion, nervous,	1
Bowels, inflammation,	2	" and diptheria, -	1	Fever, puerperal, ----	4
" cancer of, ----	1	Cyanosis, ----------	1	" scarlet, -------	40
Brain, congestion of,	3	Cyanche trachealis, --	1	" " and meningitis, -----	2
" " " & scarlet fever,	2	Debility, general, ----	3	" " malignant,	2
" compression of,	1	Diabetes, ----------	1	" typhoid, ------	5
" inflammation,	5	Diarrhœa, ----------	2	" " and chronic dysentery,	1
Bronchitis, ----------	3	" and indigestion, -----	1	Gangrene, dry, ------	1
" & apoplexy	1	Diptheria, ----------	2	Gastritis, ----------	1
" & emphysema, ----	1	Dropsy, ----------	3		
" & phthisis		" and scarlet fever, --------	2		

Gastritis and phthisis pulmonalis,	1	Lungs, paralysis and congestion of,	1	" broncho,	1
Hæmoptysis,	1	" hemorrhage of, and phthisis pulmonalis,	1	" typhoid,	2
Heart, fatty degeneration, of,	1	Manslaughter,	1	Prolapsus funis,	1
" disease of,	2	Measles and diptheria	1	Scrofula,	1
" organic disease,	1	Metro-peritonitis,	1	" necrosis of, and diarrhœa,	1
" valvular "	2	Meningitis,	5	Suicide,	1
Hepatitis, chronic,	1	" acute	1	Small-pox	1
Hernia, strangulated	1	" cerebro-spinal	6	Spina bifida,	1
Hydrophobia,	1	" tubercular,	3	Stomach, cancer of,	3
Hydrocephalus,	6	Old age,	8	Tabes mesenterica,	8
" acute,	2	Œdema, pulmonium,	2	Teething,	3
Icterus,	1	Parotid glands, infiltration of,	1	Throat, putrid sore,	1
Inanition,	8	Paralysis,	2	Tongue, cancer of,	1
Inflammat'n, peritoneal	1	Pericarditis	1	Tumor, abdominal,	1
Intemperance,	1	Peritonitis,	2	Uterus, cancer of,	2
" and exposure	1	Phthis pulmonalis,	45	" hemorrhage of,	1
" and rheumatism,	1	Pleurisy, and convulsions,	1	Varicella, and pneumonia,	1
Larynx, ulceration of,	1	Pneumonia,	27	Whooping-cough,	7
Laryngitis,	1	" and bronchitis,	2	" and bronchitis,	3
Liver, congestion of,	1	" and convulsions,	1	" and pneumonia,	1
" disease of, and intemperance,	1			Unknown,	2
" induration of,	1			Total,	382
Lungs, congestion of,	1				

AGES.

Under 1	123	20 to 30	19	70 to 80	11
1 to 3	69	30 to 40	36	80 to 90	3
3 to 5	28	40 to 50	28	117	1
5 to 10	23	50 to 60	16		
10 to 20	18	60 to 70	7	Total,	382

NATIVITIES.

Atlantic Ocean,	1	England,	13	Norway,	9
Bohemia,	4	France,	2	Scotland,	2
Canada,	1	Germany,	44	Sweden,	7
Chicago, Native,	81	Holland,	1	Unknown,	1
Chicago, Foreign,	121	Ireland,	36		
U. S., other parts,	57	Italy,	2	Total,	382

MORTALITY BY WARDS FOR THE MONTH.

Ward.	Mortality.	Pop. in 1868.	One death in	Ward.	Mortality.	Pop. in 1868.	One death in
1	3	9,094	3,031	12	30	17,485	583
2	21	13,074	622	13	20	11,164	558
3	17	15,076	887	14	21	14,839	707
4	15	17,796	1,186	15	34	21,078	620
5	26	16,033	617	16	34	15,465	455
6	16	13,083	818	County Hosp.	12		
7	34	25,492	750	Marine Hosp.	1		
8	24	15,813	659	H'me for Fr'ndless,	4		
9	28	19,297	689	Prot. Orphan Asylum,	1		
10	11	12,925	1,175				
11	23	14,340	623				

Total, 382

COMPARISON.

Deaths in Jan., 1869,----382	Deaths in Jan., 1868,----438	Decrease,--- 56
Deaths in Dec., 1868,----374	Increase, ----------	8
Males, ----208	Females, ----174	Total, ----382
Single, ----279	Married ----103	Total, ----382
White,----380	Colored, ---------- 2	Total, ----382

AN AGED PRIMIPARA.—Dr. Cachot, of St. Mary's Hospital, London, recently delivered in that institution a female of her first child, at the age of 53 years, and again in sixteen months. In both confinements the labor was tedious, from inertia of the uterus, and forceps were required. The mammary glands produced no milk, but were enlarged. The children lived in both cases.—*Ibid.*

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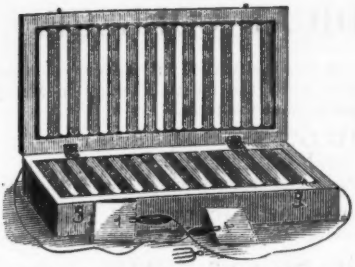

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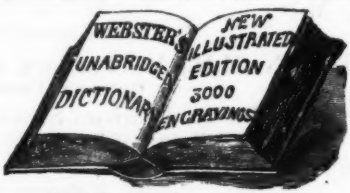

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